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## THE PUBLIC HEALTH PROGRAM OF THE UNITED STATES TRAINING CORPS FOR WOMEN.

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The need of practical measures for the advancement of physical development among the young people of the United States was clearly indicated by the startling proportion of preventable or correctible incapacitating physical defects found among the men examined for admission into our military establishment during the active period of the war. The training and régime of the Army and Navy training camps promptly effected among the recruits generally a remarkable improvement in health and vigor.

It may be assumed that the proportion of preventable or correctible physical defects among the American women at least equals that found among our men. With the idea that a course of physical training somewhat similar to that given in the military camps would benefit the average woman, Miss Susanna Cocroft, who had had extensive experience in the physical training of women, came to Washington in 1918 and offered her services for the establishment of training courses for women working in the Government departments. Her offer was accepted and over 3,500 women working in the Government offices in Washington availed themselves of the opportunity to learn under expert guidance, outdoors in the early morning and late afternoon hours, breathing and setting-up exercises and the quick reflex mental alertness necessary to the accomplishment of military maneuvers. The benefit of this course to the women who took it was obvious. The results indicated the advisability of efforts to apply, on a Nation-wide scale and after the active period of the war had ended, the principles established. The plan formulated by Miss Cocroft is the establishment under the auspices of the National Government of a large number of training camps for women in different parts of the United States, the camps to be permanent or temporary according to the local controllable conditions and indications.

A practical test of the plan was made by the establishment and operation of a camp on the shore of Lake Geneva, Wis., in August, 1919. The camp was designated "Camp Geneva." One hundred and forty-seven women took the training course in this camp. The course was of either two weeks' or one month's duration. The

women came from 22 different States. Some were from cities and some were from strictly rural sections. Their age range was from 20 to 65 years; about half were married. Some were wealthy and some were wage earners in stores or offices. Thus they constituted a fairly typical representation of American women.

The camp was excellently located on ground sloping gently to the lake, and the area was more than ample. Tents were provided for sleeping quarters and were so operated as to furnish practically outdoor conditions for sleeping. The sanitary installations were exceptionally good for a temporary camp, and careful attention was given to the maintenance of good sanitary conditions. The régime of the camp was strictly military in character; the course consisted of training in breathing, correct posture and setting-up exercises, drilling, swimming, and lectures on various practical subjects. The women before admission to the training course and periodically during the course were given physical examinations by a woman physician. The instructions in drilling were given by two lieutenants and two sergeants detailed to the camp from the United States Army.

As the main purpose of the training course was to stimulate a lasting interest and give detailed instructions in health measures, a considerable proportion of the lecture course was devoted to this topic. A series of six lectures on physiology, hygiene, and sanitation was given by two officers detailed from the United States Public Health Service. These officers, Asst. Surg. R. C. Williams and the writer, were requested by the camp management to assist in the formulation of a concrete plan for the alignment of the United States Training Corps for Women with the forces working constructively for the advancement of the national health interests. A committee of seven, fairly representative of all the women in the camp, was selected from among the members of the corps to take part in the deliberations. The result of the deliberations was in the form of a pledge as follows:

#### HEALTH PLEDGE OF THE UNITED STATES TRAINING CORPS FOR WOMEN.

As a member of the United States Training Corps for Women, I hereby pledge myself in the interest of the health of the people of the United States to the following:

1. To endeavor to keep myself in good physical trim—
  - (a) By proper breathing exercises;
  - (b) By setting-up exercises;
  - (c) By the use, so far as may be practicable, of a wholesome well-balanced diet;
  - (d) By cleanliness and care of the mouth and teeth;
  - (e) By regular bathing—daily when practicable.
2. To dispose of the secretions and excretions from my body in a sanitary manner—
  - (a) By smothering my coughs and sneezes so that the droplets will not be deposited directly on the bodies of other persons;
  - (b) By practicing consistently the most cleanly methods practicable to prevent sputum and the excretions from the intestines and kidneys from being scattered about to be a menace to the health and comfort of others;
  - (c) By having my hands clean when handling foods for myself and others.

3. To protect myself from dangerous dirt (and tactfully to encourage others so to protect themselves)—

- (a) By avoiding the use of common saliva-contaminated drinking or eating vessels or utensils;
- (b) By avoiding the use of common soiled towels;
- (c) By avoiding so far as may be practicable the use of unclean or unwholesome foods and beverages.

4. To do all practicable to have established and maintained at my own home good sanitary conditions with particular respect to—

- (a) Ventilation of the dwelling house;
- (b) Disposal of human excreta, garbage, stable manure, and other refuse matter;
- (c) The safeguarding or purification of the water supply used for drinking or culinary purposes;
- (d) The safeguarding or purification (pasteurization) of the household milk supply;
- (e) The elimination of flies and other contaminating agents from foods used for human consumption.

5. To join in or to inaugurate community efforts to advance community hygiene with particular respect to—

- (a) The obtainment of clean and wholesome public water supplies;
- (b) The obtainment of clean and wholesome public supplies of milk, ice cream, meats, vegetables, bread, and other foods;
- (c) The establishment and maintenance of adequate public service for the collection and disposal of garbage, stable manure, and privy contents, in such places as present conditions suitable for the practicable and economic operation of such public service;
- (d) The extension of or the installation of sanitary sewerage systems or sanitary privy systems;
- (e) The carrying out of measures to prevent mosquitoes.

6. To observe, and to encourage the observance of, hygienic measures for the promotion of infant welfare, and in the event of motherhood to nurse my child at my breast if possible.

7. To promote the health of young people by doing everything in my power to encourage outdoor setting-up exercises—daily when the weather permits—for all children in our schools.

8. To do all practicable to help in the development and maintenance of reasonably adequate local (town, city, or county), State, and national governmental health organizations.

Each member of the corps committee expressed the opinion that the provisions of this pledge are practical and that observance of them can reasonably be expected from the average American woman who has had a training course similar to that given at Camp Geneva. The pledge was submitted to all the members of the corps then in the camp, and of 126 women present, 125 signed the pledge with enthusiasm and apparently with the definite intention of observing the principles involved. If the members of the corps observe the provisions of their pledge to the degree suggested by the intelligent and enthusiastic interest of those at Camp Geneva, and if the plan contemplated for the extension of the training course to thousands of women in different sections of the country should be carried out, the United States Training Corps for Women will become a public health agency of tremendous practical value to our Nation.

## Laboratory Tests of Air-Measuring Bags and Disk-Valve Hand Pump for Mine Dust Sampling Apparatus.

By G. E. McElroy, Assistant Sanitarian, United States Public Health Service.

The experiments here reported were conducted by the writer at the Pittsburgh, Pa., and Golden, Colo., stations of the Bureau of Mines, under the personal direction of Mr. A. C. Fieldner, supervising chemist; and were made during the period April 30 to May 31, 1919, inclusive.

Two sets of tests were conducted, as follows:

I. Tests of air-measuring bags for use with a breathing type of dust-sampling apparatus.

II. Tests of a disk-valve hand pump as motive power for dust-sampling apparatus.

### I. TESTS OF AIR-MEASURING BAGS FOR USE WITH BREATHING TYPE OF DUST-SAMPLING APPARATUS.

The objects of these experiments were to calibrate and to determine the general adaptability of large-capacity air-measuring bags for use with a breathing type of dust-sampling apparatus for mine work.

#### General Statement.

A breathing type of dust-sampling apparatus, until this time considered standard for the Bureau of Mines, is equipped with an air-measuring bag made of light-weight rubberized fabric, having a capacity of slightly over 1 cubic foot, and which, when uninflated, is approximately 5 feet long by 12 inches wide. Previous tests have shown a maximum error of 10 per cent in air measurement with this bag. Also, with such a small capacity, a minimum of 12 to 14 bagfuls would be required for a good sample, necessitating an inconvenient amount of manipulation as regards connecting, disconnecting, and emptying the bag.

To overcome the foregoing difficulties it was thought probable that a 15 cubic foot bag, approximately cylindrical when inflated, could be used. A bag of rather heavy rubberized fabric of the same material as that adopted by the Army for air pillows was procured. This bag was 5 feet long and 3 feet 4 inches wide, uninflated. A few preliminary trials showed, first, that the bag when inflated was too large for convenient handling; second, that, the width of the bag being greater than the width of the material, a seam had been placed about 6 inches from one side which made it impossible to roll the bag up evenly on a stick, a necessary requirement if the bag is to be entirely emptied; and third, that the opening for a connection at the top had been made much smaller than specified.



In view of these facts, the original bag was cut down to 4 feet 9 inches by 28 inches, uninflated dimensions, and, as remodeled, is designated as bag No. 1.

As soon as the approximate volume of bag No. 1 had been secured, a rough calculation was made to determine the dimensions of a bag having a volume of approximately 8 cubic feet, and two bags of the calculated dimensions and made of light-weight rubberized fabric were procured. These two bags are as nearly as possible identical, and are designated as bags Nos. 2 and 3, respectively.

#### Apparatus.

An American Meter Co. dry meter, type 5-light B, was connected to the inlet end of a new standard sugar tube, the outlet of which was connected, both with and without the intervention of the mouth-breathing parts of the present standard apparatus, to the bags designated as Nos. 1 and 2, each bag having been fitted with a metallic connection piece with water-gauge attachment.

The dimensions and other data regarding bags Nos. 1 and 2 are given in Figure 1. The apparatus and photostat copies of drawings of the new standard sugar tube and of the new connection pieces are shown in Figures 2, 3, 4, and 5.

#### Results of Tests.

*Bag No. 1.*—Direct calibration of the bag by passing air at slight pressure through the meter and sugar tube into the bag gave volumes of 7.27 to 7.35 cubic feet when filled to 2 inches water-gauge pressure, with an average of 7.32 cubic feet for six trials. In this test the bag was rolled up very carefully each time on a flat surface.

Calibration of the bag in use, by measurement of the amount of air sucked through the tube necessary to fill the bag to 2 inches water-gauge, the bag having previously been rolled up while held vertical, gave volumes of 7.08 to 7.20 cubic feet, with an average of 7.12 cubic feet for six trials, or a maximum plus or minus error of about 1 per cent. To fill the bag required from 10 to 14 minutes, at 0.04 to 0.10 cubic feet per breath. Room temperatures were varied from 63° F. to 80° F. The temperature of the air in the bag was determined immediately (about 20 seconds) after the bag was full by suspending a thermometer in the outlet of the disconnected bag and forcing the air out. As measured, the excess in temperature of the air in the bag over that of the room varied approximately inversely as the temperature, being 6° at 63° F. and 2° at 80° F. It was noted that about 0.25 cubic foot was required to raise the pressure in the bag from 1 inch water-gauge to 2 inches water-gauge. Two inches water-gauge pressure was required to completely distend the bag, although distention was practically complete at 1 inch water-gauge.

*Bag No. 2.*—Calibration of the bag in use was carried out in the same manner as that for bag No. 1, except that on account of the bag being of lighter material it was filled to but 1 inch water-gauge pressure.

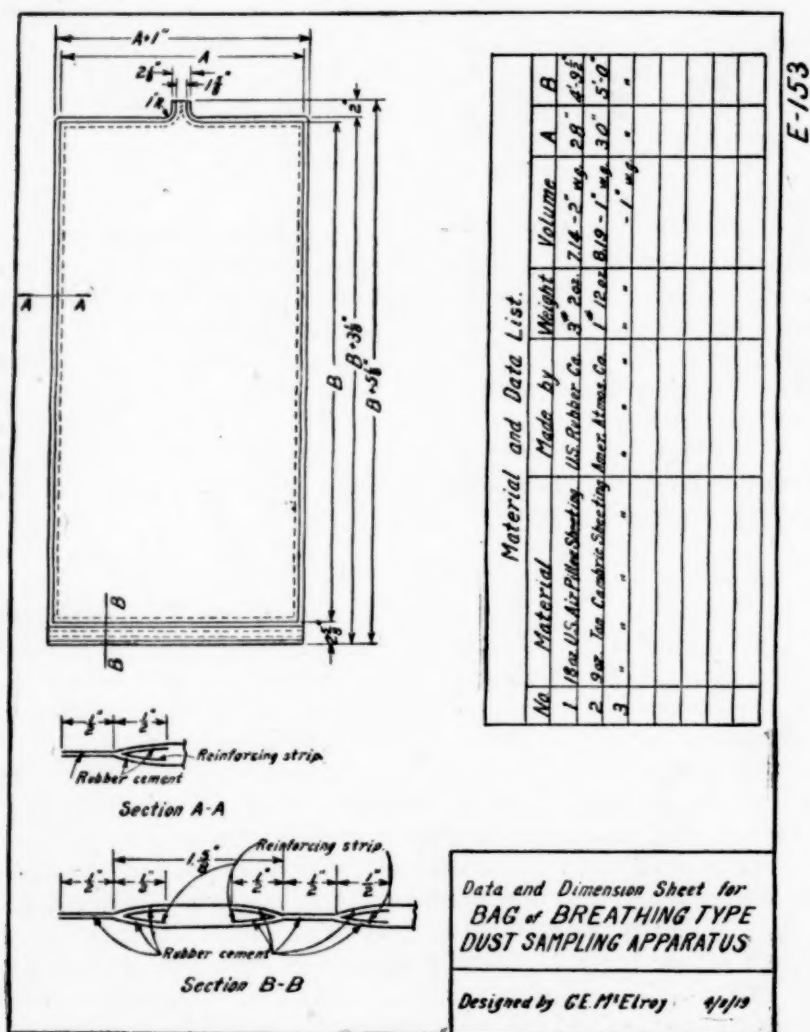


FIG. 1.

Six trials of 11 to 14 minutes' duration gave volumes of 8.14 to 8.25 cubic feet, with an average of 8.19 cubic feet, or a maximum plus or minus error of approximately 1 per cent.

Measurements of the increase in bag temperature over room temperature for room temperatures of 62° F. to 73° F., gave 2° to 3° increase, the amount of the increase apparently being independent of the temperature.



FIG. 2.

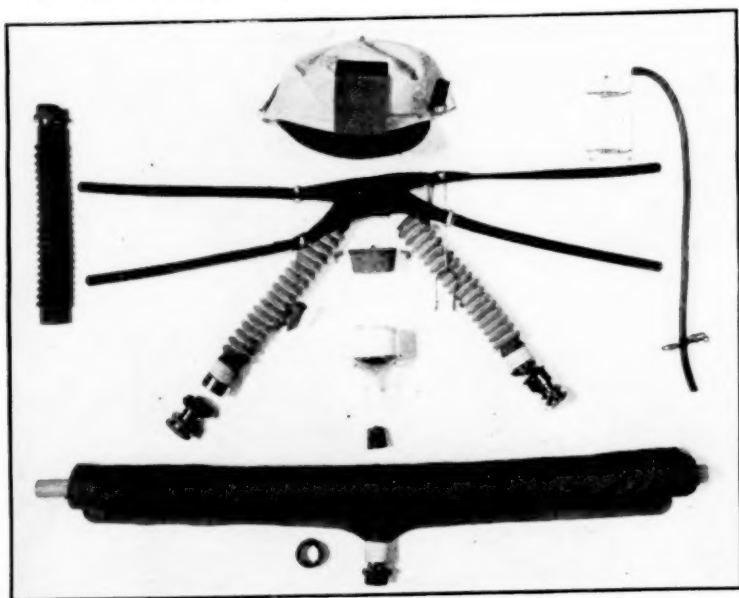


FIG. 3.

## Remarks and Conclusions.

It appears feasible to use bags of rubberized fabric of as much as 8 cubic feet capacity for air measurement with a breathing type of dust-sampling apparatus.

Bags made of light-weight tan cambric sheeting are preferable to bags made of the heavier air-pillow sheeting on account of their lighter weight, better heat dispersion of the included air, and the fact that they can be made with the rubberized side of the fabric outside. However, it is probable that the cambric sheeting may not prove strong enough for mine work. In handling a bag of this material

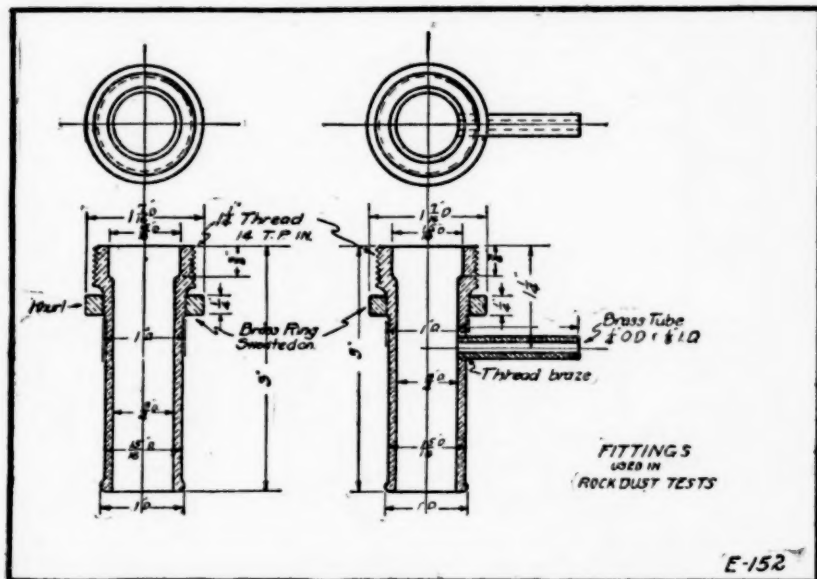


FIG. 4.

it is necessary to keep the tip of the water-gauge tube connection covered with rubber tubing to prevent accidentally puncturing the bag.

Extensive use of bags of this capacity (8 cubic feet) may show that a shorter and wider bag would be more convenient to handle.

These tests indicate that bags of this nature and size can be used to measure the air sucked by breathing through a standard sugar tube, with an error of 1 per cent or less, an accuracy comparable to that of standard dry meters.

It is necessary to fill bag No. 1 to 2 inches water-gauge pressure to secure proper distention; while with bag No. 2, on account of its lighter weight, but 1 inch water-gauge pressure is required. In each case it seems very likely that the end point could be determined with sufficient accuracy—that is, within 2 per cent—without refer-



ence to a water gauge except, occasionally, as a check. No experiments have been conducted as yet to support this statement.

A certain amount of air is trapped in the bag each time it is rolled up, but this amount is practically constant and is properly accounted for when the calibration obtained by breathing the bag full is used.

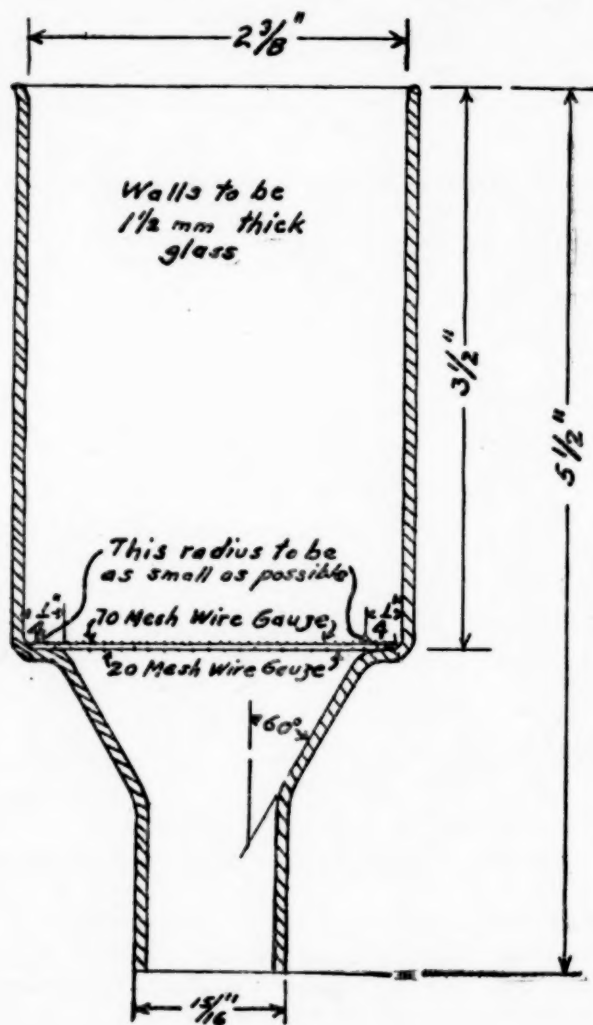


FIG. 5

By using the figure obtained by breathing the bag full and measuring the air going into the sugar tube the correct figure for the amount of air sampled is obtained, regardless of the fact that the volume of air in the bag may actually be a greater or less amount.

**LOG OF TESTS.**—Bureau of Mines Laboratory, Pittsburgh, Pa.

**A. Direct calibration of bag No. 1.**—Bag filled to 2 inches water-gauge pressure—Air at slight pressure run through meter and standard sugar tube into bag—Bag rolled up evenly on flat surface before each trial—May 14, 1919, p. m.

Cubic feet by meter.	Time elapsed.
7.27	6
7.32	8
7.28	8
7.31	10
7.32	8
7.35	9
<sup>1</sup> 7.32	<sup>1</sup> 8

<sup>1</sup> Average.

**B. Calibration of bag No. 1 by breathing bag full to 2 inches water-gauge pressure, using standard sugar tube**—Bag rolled up while hanging vertically—May 15, 1919, a. m.

Cubic feet by meter.	Time elapsed.	Room temperature.	Temperature of air in bag at end point.	Difference of temperature.
		<sup>o</sup> F.	<sup>o</sup> F.	<sup>o</sup> F.
7.08	13	89.0	82.0	2
7.08	10	76.5	79.0	2½
7.14	11	76.5	79.0	2½
7.08	13	72.0	75.0	3
7.16	11	63.0	69.0	6
7.20	14	69.0	72.0	3
<sup>1</sup> 7.12	-----	-----	-----	-----

<sup>1</sup> Average.

**C. Calibration of bag No. 2 by breathing bag full to 1 inch water-gauge pressure, using standard sugar tube**—Bag rolled up while hanging vertically—May 15, 1919, p. m.

Cubic feet by meter.	Time elapsed.	Room temperature.	Temperature of air in bag at end point.	Difference of temperature.
		<sup>o</sup> F.	<sup>o</sup> F.	<sup>o</sup> F.
8.15	13	73.0	76.0	3.0
8.17	11	73.0	75.0	2.0
8.14	12	66.0	69.0	3.0
8.25	12	64.0	66.5	2.5
8.22	12	62.0	65.0	3.0
8.20	14	62.0	64.5	2.5
<sup>1</sup> 8.19	<sup>1</sup> 12	-----	-----	<sup>1</sup> 2.7

<sup>1</sup> Average.

## II.—TESTS OF DISK-VALVE HAND PUMP AS MOTIVE POWER FOR DUST-SAMPLING APPARATUS.

These tests were carried out to calibrate and to determine the general adaptability of a disk-valve hand pump for use as motive power for dust-sampling apparatus for mine work.

### General Statement.

A ball-valve hand pump, modeled after the type used in South Africa for dust-sampling work, had been found by test to be very

hard to manipulate and of widely varying capacity when operated at varying speed. The pump was, therefore, remodeled and the ball valves with their small-diameter connecting ports were replaced by disk valves with large-diameter connecting ports.

#### Apparatus.

A working drawing of the disk-valve pump is shown in Figure 6, and photographs showing the pump in use and the set-up for calibration purposes in Figures 7 and 8. The pump itself weighs 15 pounds. The wooden carrying case containing the pump and accessories weighs 36 pounds.

#### Results of Tests.

Preliminary 3-minute calibration tests made at the Bureau of Mines laboratory, Pittsburgh, Pa., on the pump as received from the instrument maker, gave uniformly varying capacities of 0.0994 cubic foot per double stroke at 12 strokes per minute to 0.1031 cubic foot at 30 strokes per minute. The pump was then disassembled and shipped to Golden, Colo.

Upon reassembling the pump it was found that the casing of the two inlet valves was not tight, thereby making preliminary calibration tests void. It was noted also that the diaphragm was loose, but it was not tightened at this time.

Further 3-minute calibration tests gave such variable results that the pump was taken apart, cleaned, and the diaphragm tightened and well oiled with medium heavy machine oil.

A large number of calibration tests were then conducted, in which the number of strokes per minute, the total time of operation, and the time interval between tests were varied at will. These tests were all conducted at the Bureau of Mines laboratory at Golden, Colo., in *quiet* atmospheres.

The results of these tests can be expressed as follows:

1. The capacity per stroke increases with the speed, being approximately 2 per cent higher at 20 strokes per minute than at 12 strokes per minute.
2. The capacity per stroke decreases slightly as the time of continuous operation increases, until a point is reached, dependent upon the speed of operation, at which the capacity becomes practically constant. The amount of this decrease is uncertain at 12 strokes per minute, due to greater variations in capacity. At 15 strokes per minute the decrease amounts to about 1 per cent between 5 and 15 minutes' operation and but little over 1 per cent between 5 and 30 minutes' operation. (This effect is mainly due to increased temperatures in the pump barrel due to friction, and the amounts mentioned would probably be much less in moving air currents.)

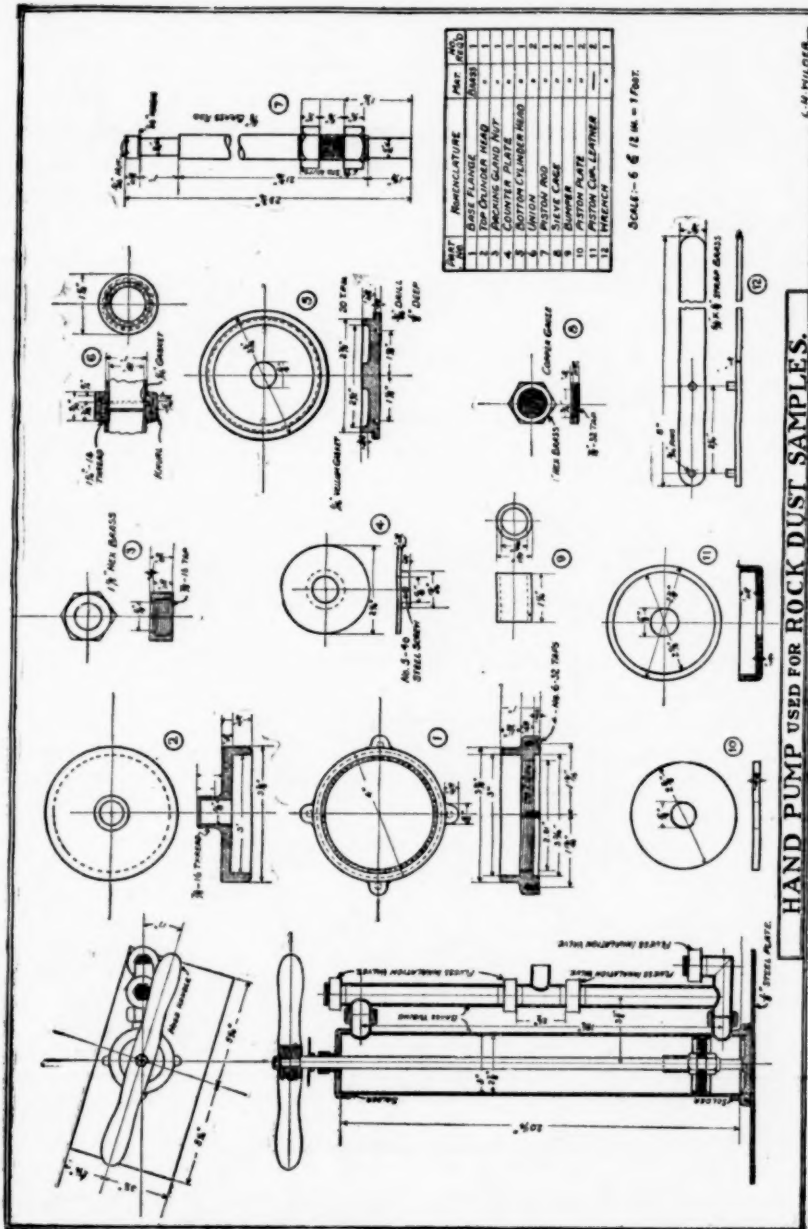


FIG. 6.

HAND PUMP USED FOR ROCK DUST SAMPLES.

C. M. WILDER.

3. Greater variations were recorded at 12 strokes per minute than at higher speeds, the variation decreasing as the speed was increased. This is thought to be due to the mica disk valves setting better at the higher speeds.

4. For ordinary field operation, the capacity per stroke for 15-minute samples may be determined within 1 per cent by averaging meter-test readings for two 15-minute tests, with 5 to 10 minute intervals between tests, at 12 strokes per minute. This average should be increased 1 per cent for 15 strokes per minute and 2 per cent for 20 strokes per minute.

5. For special field operations, involving practically continuous operation, reference should be made to "log of tests" contained in this report, pages 2443 to 2446, for data regarding variation in capacity, or the latter should be checked by meter during the progress of the work.

6. The pump should be calibrated as often as convenient until sufficient data is obtained to warrant establishing a *maximum* interval between calibrations.

7. After the pump had been assembled, succeeding tests gave slightly increasing capacity, thought to be due to the piston diaphragm "setting."

The results of these tests are expressed in the following table:

*Calibration of disk-valve hand pump.*

Length of test, minutes.	Strokes per minute.	Number of tests.	Cubic feet per stroke.			Time between tests, minutes.	Remarks.
			Maximum.	Minimum.	Average.		
3	12	10	0.1061	0.1044	0.1050	(1)	Consecutive tests.
15	12	2	.1043	.1042	.1043	(1)	Pump warm at start.
3	15	10	.1060	.1044	.1051	(1)	Consecutive tests.
15	15	2	.1038	.1036	.1037	(1)	Pump cold at start.
3	20	5	.1080	.1067	.1074	3	Do.
3	20	5	.1075	.1065	.1070	3	Pump warm at start.
15	20	2	.1070	.1068	.1069	110	Pump cold at start.
30	12	1	.....	.....	.1051	.....	Pump cold at start; 5-minute readings. (See log).
30	15	1	.....	.....	.1055	.....	Do.
30	20	1	.....	.....	.1070	.....	Do.
15	12	4	.1056	.1011	.1047	.....	Pump cold at start.
15	15	4	.1069	.1059	.1062	5	Do.

<sup>1</sup> Time not noted.

#### Remarks and Conclusions.

It appears quite feasible to use a disk-valve hand pump as motive power for dust-sampling apparatus. With care, results accurate to within 1 per cent can be obtained with an apparatus of this type.

The pump used in these tests is rather heavy and cumbersome for mine use, and of too large a capacity for taking samples efficiently



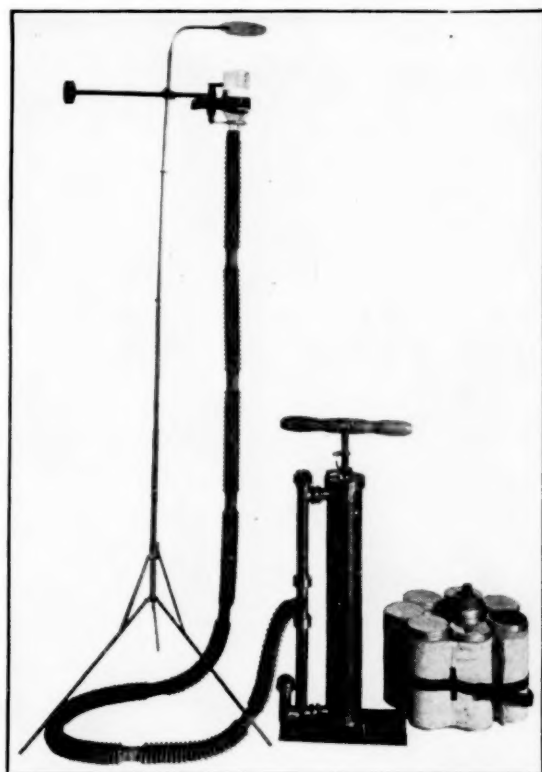


FIG. 7.

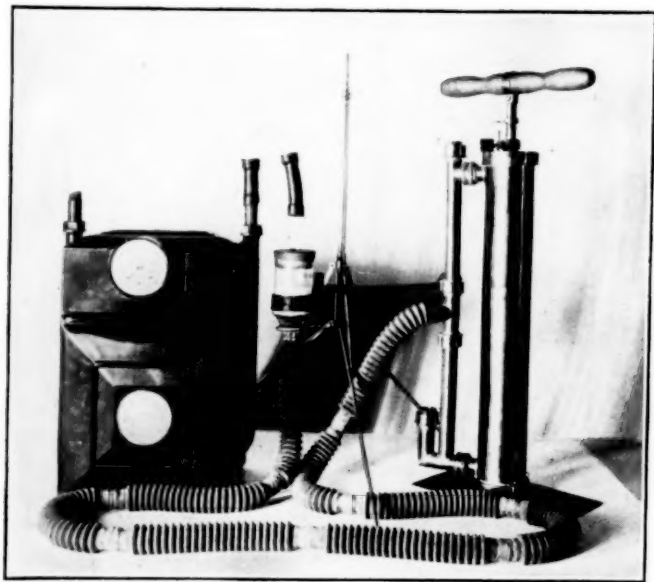


FIG. 8.

at the rate of 1 cubic foot a minute. For the latter rate of sampling, a pump of smaller capacity, lighter, and not so cumbersome could easily be designed. If such a pump were made of aluminum, the decrease in weight would be an advantage.

At a speed of 12 double strokes per minute the mica disk valves do not seat as effectively as they do at speeds of 15 to 20 strokes per minute, a fact that can be detected by the ear.

A pumping speed of about 20 double strokes per minute seems to be what might be called a normal speed, and can easily be maintained for from 10 to 15 minutes without undue fatigue with the pump used in these tests, the diaphragm of which had been well oiled.

The pump is so easily operated that the only fatigue noted is that due to bending over for each double stroke. This fatigue should be eliminated in future designs, if possible, by limiting the length and elevation of the stroke to that which may be accomplished by movement of the arms alone.

Each time that the diaphragm is replaced the piston should be rotated freely and worked for as long a time as possible before calibrating for actual use in order to give the diaphragm a good "set."

The pump-valve parts should be removed frequently and examined for the presence of dirt and especially of sugar.

Each time the pump is used after a considerable interval, such as a day or more, the counter device should be checked to make sure that it is functioning properly. When the piston is at the end of the down stroke, its most compact form, the spring of the counter device is in tension, and if allowed to remain in this position for a long time it may become too weak to function properly.

LOG OF TESTS.—Calibration of disk-valve hand pump. Model No. 1, pump No. 1.

*Series No. 1.—Bureau of Mines laboratory, Pittsburgh, Pa., May 15, 1919—Pump as received from instrument shop—(Diaphragm loose, inlet valves leaking)—Time between tests not noted—G. E. M. and A. C. F.*

Length of tests, minutes.	Strokes per minute.	Cubic foot per stroke.
3	11	0.0994
3	11	.0994
3	27.3	.1007
3	22	.1017
3	12.7	.1000
3	27	.1013
3	30	.1031
3	23.7	.1020
3	15	.1002
Interval of one-half hour.		
3	12	.1006
3	11.7	.0997

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Series No. 2.—Bureau of Mines laboratory, Golden, Colo., May 24, 1919—Inlet valves tight; no leaks; diaphragm loose—Consecutive tests—Time between tests not noted.

Length of test, minutes.	Strokes per minute.	Cubic feet per stroke.
3	14	0.1060
3	12	.1036
3	15	.1062
3	10	.1025
3	19	.1056
3	13	.1053
3	12	.1006

Series No. 3.—Bureau of Mines laboratory, Golden, Colo., May 26 and 27, 1919—Pump taken apart, thoroughly cleaned, diaphragm tightened and oiled with medium heavy engine oil, and reassembled—Time interval between tests not noted—Tests run consecutively.

MAY 26, A. M.

3-minute tests at 12 strokes per minute.	15-minute tests at 12 strokes per minute.
0.1047	0.1042
.1061	.1043
.1050	
.1053	<sup>1</sup> .1043
.1047	
.1044	
.1050	
.1047	
.1047	
.1050	
<sup>1</sup> .1050	

<sup>1</sup> Average.

MAY 26, P. M.

3-minute tests at 15 strokes per minute.	15-minute tests at 15 strokes per minute.
0.1053	0.1036
.1058	.1038
.1047	
.1047	<sup>1</sup> .1037
.1047	
.1060	
.1056	
.1047	
.1047	
.1044	
<sup>1</sup> .1051	

<sup>1</sup> Average.

*A 15-inch Centigrade thermometer was strapped to outside of pump barrel, and another Centigrade thermometer was hung near inlet to meter. Rotation of handle was limited by counter device to about 10° each way from normal.*

[In the following table the position of the handle (and diaphragm) is indicated thus: — normal; / 10° to left; \ 10° to right; \* varied. Pump was operated at 20 strokes per minute.]

MAY 27, P. M.

Length of tests, minutes.	Time.	Position.	Cubic feet per stroke.	Room temperature.		Pump temperature, °C.	Indicated difference in temperature, °C.
				°F.	°C.		
3	a. m.						
	10.17		0.1080	72	22	22.0	0.0-2.0
	10.20					24.0	
3	10.22	/	.1078	72	22	23.5	1.5-2.5
	10.25					24.5	
3	10.27	\	.1075	72	22	24.5	2.5-4.0
	10.30					26.0	
3	10.32	*	.1067	72	22	26.0	4.0-5.0
	10.35					27.0	
3	10.37	—	.1068	72	22	26.5	4.5-5.0
	10.40					27.0	
3	10.57	/	.1075	72	22	24.0	2.0-3.5
	11.00					25.5	
3	11.02	\	.1070	72	22	25.5	3.5-4.5
	11.05					26.5	
3	11.07	*	.1075	72	22	26.5	4.5-5.0
	11.10					27.0	
3	11.12	—	.1065	72	22	26.5	4.5-5.5
	11.15					27.5	
3	11.17	*	.1067	72	22	27.0	5.0-6.0
	11.20					28.0	
15	11.40	*	.1070	73	23	24.5	1.5-5.5
	11.55					28.5	
15	p. m.						
	1.45	*	.1068	73.5	23	23.5	.5-5.0
	2.00					28.0	

Average of 3-minute tests, 0.1072.

Average of 15-minute tests, 0.1069.

Pump temperature 24.5° at 2.20 p. m.

*Series No. 4.—Bureau of Mines laboratory, Golden, Colo., May 27 and 29, 1919—30-minute tests; readings at 5-minute intervals.*

12 STROKES PER MINUTE. MAY 27, 1919.

Time.	Time elapsed, minutes.	Cubic feet per stroke—average for interval of—			Room temperature.		Pump temperature, °C.	Indicated difference in temperature, °C.
		5 minutes.	15 minutes.	30 minutes.	°F.	°C.		
p. m.								
3.30					75.5	24.0	24.5	0.5
3.35	5	0.1047			75.5	24.0	25.5	1.5
3.40	10	.1047			75.5	24.0	26.5	2.5
3.45	15	.1060	0.1051		75.5	24.0	27.0	3.0
3.50	20	.1060			75.5	24.0	27.3	3.3
3.55	25	.1038			75.5	24.0	27.5	3.5
4.00	30	.1055	.1051	0.1051	75.5	24.0	27.5	3.5

Pump temperature normal in 20 minutes.

15 STROKES PER MINUTE. MAY 29, 1919.

3.00					72.0	22.5	22.5	0.0
3.05	5	0.1067			73.0	23.0	25.0	2.0
3.10	10	.1063			73.0	23.0	26.5	3.5
3.15	15	.1055	0.1062		73.0	23.0	27.0	4.0
3.20	20	.1052			73.0	23.0	27.5	4.5
3.25	25	.1047			73.0	23.0	28.0	5.0
3.30	30	.1048	.1049	0.1055	73.0	23.0	28.0	5.0

20 STROKES PER MINUTE. MAY 29, 1919.

4.10					75.0	24.0	24.5	0.5
4.15	5	0.1079			75.0	24.0	26.0	2.0
4.20	10	.1071			75.0	24.0	28.0	4.0
4.25	15	.1069	0.1073		75.0	24.0	29.0	5.0
4.30	20	.1069			75.0	24.0	29.0	5.0
4.35	25	.1067			75.0	24.0	29.2	5.2
4.40	30	.1066	.1067	0.1070	75.0	24.0	29.4	5.4

Pump temperature 24.5° at 5.20 p. m.



Series No. 5.—Bureau of Mines laboratory, Golden, Colo.; May 30 and 31, 1919—15-minute tests at 5-minute intervals.

12 STROKES PER MINUTE. MAY 30, 1919.

Time.	Cubic feet per stroke.	Room temperature.		Pump temperature, °C.	Indicated difference in temperature, °C.
		°F.	°C.		
a. m.					
11.16	0.1050	68.5	20.5	21.0	0.5-3.0
11.31				23.5	
11.36	.1046	68.5	20.5	22.5	2.0-3.5
11.51				24.0	
11.56	.1041	68.5	20.5	23.0	2.5-4.0
12.11				24.5	
12.16	.1043	68.5	20.5	23.5	3.0-4.2
12.31				24.7	

15 STROKES PER MINUTE. MAY 31, 1919.

a. m.					
10.50	0.1009	65.5	18.5	19.0	1.0-4.0
11.05				22.5	
11.10	.1061	65.5	18.5	21.5	3.0-4.5
11.25				23.0	
11.30	.1059	65.5	18.5	22.0	3.5-5.0
11.45				23.5	
11.50	.1059	65.0	18.0	21.5	3.5-5.5
12.05				23.5	

## THE WEIL-FELIX REACTION AS A LABORATORY TEST IN THE DIAGNOSIS OF TYPHUS FEVER.

By IDA A. BENGTON, Bacteriologist, United States Public Health Service.

The Weil-Felix reaction, which has recently come into use as a means of diagnosing typhus fever, is of special interest in that an organism which has not been shown to be etiologically concerned in the disease can nevertheless be used for the diagnosis of typhus fever in the same way that the typhoid bacillus is used in the diagnosis of typhoid fever by the well-known Widal test. Whether it may ultimately be shown that the reaction is due to the presence as secondary invaders of the Proteuslike organisms which are used in the test, or whether it is entirely nonspecific, the reaction is still a very useful one for the reason that no satisfactory laboratory method of diagnosing typhus fever, aside from animal inoculations, had previously been discovered.

A recent article in the *Journal of Hygiene* by N. Hamilton Fairley (1)<sup>1</sup> on the laboratory diagnosis of typhus fever, calls attention to the significance and value of this reaction which was first investigated by Weil and Felix (2)<sup>1</sup> in 1915. A number of cases in east Galicia were encountered by these workers, which strongly resembled typhoid

<sup>1</sup> Number indicates reference cited.

fever; but examination of the blood, stools, and urine failed to demonstrate typhoid bacilli. These cases were later diagnosed clinically as typhus fever. From the urine of one of the cases an organism was isolated which was agglutinated by the patient's own serum in a dilution of 1:200. This organism was not agglutinated by typhoid, paratyphoid A, paratyphoid B, or dysentery serum. The organism, designated as  $X_2$  which closely resembled the *Proteus* type of organisms culturally and serologically, was agglutinated by the serum of 8 similar cases, and later it was demonstrated that the serum of many undoubted typhus cases showed agglutination with this organism. Another strain,  $X_{10}$ , which was more sensitive to agglutination, was later isolated by the same workers.

The organism first isolated by Weil and Felix is described by them as a short, thin, Proteuslike, gram-negative rod, which is slightly motile, forming blue colonies on Conradi-Drigalski medium, and colorless colonies, which later become red, on Endo-medium. It ferments glucose and lactose (?) and produces an acid reaction in litmus milk, followed by curdling; it liquefies gelatin and grows like *Proteus* in plate cultures. The organism used by Fairley in the article referred to is described as producing acid and gas in glucose, saccharose, maltose, and mannite, but as not fermenting dulcete or lactose. It produced acid in milk, but without clot, and indol.

Cultures of the two organisms  $X_2$  and  $X_{10}$  were recently received at the Hygienic Laboratory through the courtesy of Dr. C. Alsberg, Chief, Bureau of Chemistry, and were compared as to cultural and agglutination reactions with a number of *Proteus* strains which form part of a collection recently studied by the author (3).<sup>1</sup> While the cultures resembled these strains in important points, there were certain differences, in degree rather than in kind, of certain reactions. This was particularly true as regards proteolytic activity. Gelatin was liquefied more slowly and to a much less extent than by typical *Proteus vulgaris* cultures, litmus milk was decolorized and the casein digested slowly, and blood serum was not digested in 14 days while five *Proteus vulgaris* cultures showed complete digestion in 7 days. Indol was formed in peptone broth, and nitrates were reduced to nitrites and ammonia. Acid and gas production were observed in glucose, saccharose, and maltose, but not in lactose, mannite, or raffinose media. The fermentation reactions correspond to those of one of the two main types into which *Proteus vulgaris* strains fall, it having been observed that one type fermented only glucose while the other fermented also saccharose and maltose. Wenner and Rettger (4)<sup>1</sup> propose the name *Proteus mirabilis* for the latter type.

<sup>1</sup> Number indicates reference cited.

A study was also made of agglutination reactions and it was found that the organisms  $X_2$  and  $X_{10}$  were agglutinated strongly by the immune sera produced from certain *Proteus vulgaris* strains and not at all by others. Also, immune sera produced from  $X_2$  and  $X_{10}$  agglutinated certain *Proteus vulgaris* cultures but not others. This is somewhat in accord with the findings of Weil and Felix (5)<sup>1</sup> who divided nonspecific *Proteus* strains which do not agglutinate with serum from typhus cases, into three groups: (I) Strains not agglutinated by rabbit immune sera from X strains; (II) those feebly agglutinated, and (III) those strongly agglutinated. None of the *Proteus* strains which they term saprophytic was agglutinated by the serum of typhus fever patients.

The question of the relationship and significance of organisms of the type  $X_2$  and  $X_{10}$  to typhus fever is debatable. Weil and Felix and other Austrian authors, as well as certain English authorities (6),<sup>1</sup> ascribe the agglutinating properties of the serum of typhus patients to the presence of the organism as a secondary invader. A compilation of the successful isolations of the organism from the blood and urine of typhus patients by Felix (7)<sup>1</sup> shows that the organism was isolated 44 times from several hundreds of cases.

The presence of immune bodies other than agglutinins, particularly complement-fixing bodies, has been investigated with a view to establishing the relationship of the X strains to typhus fever, but uniform results have not been obtained. Craig and Fairley (8) and Fairley (1), as a result of their investigations and failure to demonstrate complement fixation with antigens of the X strains, consider the secondary invasion hypothesis untenable. In Fairley's investigation it was shown that sera from undoubted typhus cases agglutinated the organisms regularly, but complement fixation was nearly always absent (55 out of 58 cases negative). As further evidence of nonspecificity it is reported that the serum of man and monkeys inoculated subcutaneously with the X strains showed not only agglutination but complement fixation. Fairley explains the Weil-Felix reaction as due to the presence of secondary or heterologous agglutinins formed by the specific agglutinogen. He states that a review of the literature discloses the fact that the sera of typhus cases must be especially rich in secondary agglutinins as agglutination of *B. typhi-exanthematici* (Plotz), *B. typhosus*, *Bacillus "U,"* of Wilson has been described, as well as that of the X strains of Weil and Felix. Reichenstein (9)<sup>1</sup> and Wagner (10),<sup>1</sup> on the other hand, report positive complement fixation, the former in 40 per cent of cases tested and the latter in all of the 6 cases tested. The evidence

<sup>1</sup> Number indicates reference cited.

thus far presented does not appear to be sufficient to show conclusively the exact relationship of the organism to the disease.

As to the constancy of the reaction, it apparently is of such a degree that the reaction is of very considerable value in the diagnosis of typhus fever. The recent work of Fairley carried out in Egypt demonstrates this. The sera of 63 out of 65, or 97 per cent of cases, showed positive agglutination reactions with the organisms; while out of 120 non-typhus cases no positive agglutinations were obtained in a dilution of 1:20. Weil and Felix (11),<sup>1</sup> in one of their earlier reports, state that 125 positive reactions and 1 negative reaction were obtained in 126 clinically positive cases of typhus fever. In 632 control sera from other diseases, including typhoid fever, variola, meningitis, and relapsing fever, about 12 per cent showed positive reactions in a dilution of 1:25 of the serum; but in practically all cases agglutination was incomplete and delayed.

The reaction appears during the first week of illness, but is at its height during the second week and during convalescence. Thus, Fairley (1)<sup>1</sup> has shown that 35 cases examined during the pyrexial period showed agglutination in dilutions of 1:20 to 1:1280 between the fifth and thirteenth days. Convalescent cases showed agglutination for a longer period than 22 days. A limited number of mild cases have failed to show positive reactions, and it was also found by Weil and Felix (11)<sup>1</sup> that the reaction sometimes failed in severe cases.

The field of applicability of this reaction is large, as is apparent from the above results. The facts that the reaction appears early in the disease and in a high percentage of cases, and is negative for other diseases, make it a useful means of diagnosis even though the reaction has not been proved to be specific in the sense that many other organisms are specific when agglutinated by the serum of cases of the disease. The fact that the Wassermann reaction for syphilis is non-specific as to antigen makes it none the less valuable as a diagnostic test.

The technique of the test as recommended by Weil and Felix (11), (12)<sup>1</sup> is as follows: A freshly grown agar culture is used, the growth suspended in 1.5 cc. of salt solution, and tests made with 1:25 and 1:50 dilutions of the serum of the suspected case. In positive cases the agglutination titer should rise from 1:25 on the sixth day to 1:200 to 1:500, or higher, on the twelfth day. If the titer is 1:25 on the first test and does not rise higher, typhus may usually be excluded. The use of killed culture antigens has been advocated by others. Jacobitz (13)<sup>1</sup> states that the agglutinability of the organism is increased by exposure to a temperature of 60° C. for one hour. An

<sup>1</sup> Number indicates reference cited.

alcoholic preparation of antigen, which is said to keep for two years, has been advocated by Sordelli, and has been used by Kraus (14)<sup>1</sup> in South America, and by others.

The Hygienic Laboratory has had occasion to put the test to practical use only a single time, when complete agglutination in a dilution of 1:400 and incomplete agglutination in the dilution 1:800 with the serum of a typhus case were obtained during the second week of the disease. A culture of *B. typhosus* Rawling and four cultures of *Proteus vulgaris* were not agglutinated in a dilution of 1:50.

Apparently the test, which has been used extensively not only in Europe but also in South American countries and elsewhere, is destined to be of great practical value as a laboratory aid in the diagnosis of typhus fever.

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## DEATHS DURING WEEK ENDED OCT. 18, 1919.

From the "Weekly Health Index," Oct. 21, 1919, issued by the Bureau of the Census, Department of Commerce.<sup>1)</sup>

Deaths from all causes in certain large cities of the United States during the week ended Oct. 18, 1919, infant mortality (per cent), annual death rate, and comparison with corresponding week of preceding years.

City.	Population July 1, 1918, estimated.	Week ended Oct. 18, 1919.		Average annual death rate per 1,000. <sup>2</sup>	Per cent of deaths under 1 year.	
		Total deaths.	Death rate. <sup>1</sup>		Week ended Oct. 18, 1919.	Previous year or years. <sup>3</sup>
Albany, N. Y.	112,565	30	13.9	C	15.0	10.0 C 6.3
Atlanta, Ga.	201,732	54	14.6	C	13.6	9.3 C 6.0
Baltimore, Md.	366,981	185	14.4	A	15.7	17.8 A 19.4
Birmingham, Ala.	197,670	58	15.3	A	14.2	17.2 A 17.4
Boston, Mass.	785,245	203	12.5	A	14.6	19.2 A 17.8
Buffalo, N. Y.	473,229	121	13.3	A	14.9	26.4 A 19.7
Cambridge, Mass.	111,432	19	8.9	A	13.2	15.8 A 18.1
Chicago, Ill.	2,596,681	532	10.7	A	12.6	19.2 A 18.0
Cincinnati, Ohio.	418,022	79	9.9	C	15.5	11.4 C 14.0
Cleveland, Ohio.	810,396	156	10.0	C	13.4	19.2
Columbus, Ohio.	225,295	51	11.8	C	10.4	13.7 C 9.1
Dayton, Ohio.	130,655	20	8.0	A	12.1	20.0 A 15.2
Denver, Colo.		73		A	12.1	11.0
Fall River, Mass.	128,392	31	12.2	C	14.3	26.7 C 22.9
Grand Rapids, Mich.	135,459	25	10.0	C	13.0	7.7 C 9.1
Indianapolis, Ind.	290,389	65	11.7	C	12.2	24.6 C 6.1
Jersey City, N. J.	318,770	61	10.0	C	14.8	18.0 C 18.0
Kansas City, Mo.	313,785	70	11.6	C	13.5	18.6 C 7.6
Los Angeles, Calif.	568,495	116	10.6	A	12.1	8.6 A 9.7
Louisville, Ky.	242,707	59	12.7	C	18.4	13.6 C 3.5
Lowell, Mass.	109,081	31	16.3	A	15.3	17.6 A 31.6
Memphis, Tenn.	154,759	70	23.6	C	19.9	8.6 C 12.1
Milwaukee, Wis.	453,481	77	8.9	A	10.9	19.5 A 21.7
Minneapolis, Minn.	383,442	63	8.6	C	10.2	14.3 C 17.8
Nashville, Tenn.	119,215	29	12.7	C	14.1	13.8 C 3.1
Newark, N. J.	428,684	81	9.9	A	12.1	22.2
New Haven, Conn.	154,875	31	11.4	C	17.8	11.8 C 15.4
New Orleans, La.	382,373	95	13.1	A	18.2	11.5 A 14.4
New York, N. Y.	5,215,879	1,029	10.3	A	12.9	15.5 A 17.5
Oakland, Calif.	214,206	34	8.3	A	8.9	8.8 A 10.4
Omaha, Neb.	180,264	29	8.4	C	14.0	10.3 C 2.2
Philadelphia, Pa.	1,761,371	431	12.9	A	14.2	16.3 A 14.1
Pittsburgh, Pa.	593,303	122	10.7	C	14.3	13.9 C 21.1
Portland, Ore.		53		C	10.5	13.2 C 12.9
Providence, R. I.	273,613	52	10.3	C	12.5	9.6 C 22.6
Richmond, Va.	160,719	37	12.0	C	15.8	10.8 C 6.3
Rochester, N. Y.	264,855	57	11.2	C	14.3	17.5 C 12.7
St. Louis, Mo.	779,951	173	11.6	C	12.8	19.7 C 14.8
St. Paul, Minn.	257,699	38	7.7	C	8.9	15.8 C 11.6
San Francisco, Calif.	478,530	123	13.4	C	13.1	8.1 C 9.3
Spokane, Wash.		17		C	5.0	11.8 C 13.3
Syracuse, N. Y.	161,404	40	12.9	C	13.5	2.5 C 22.0
Toledo, Ohio.	262,231	52	10.3	A	13.6	21.2 A 17.6
Washington, D. C.	401,681	96	12.5	A	14.7	7.3 A 12.9
Worcester, Mass.	173,650	37	11.1	C	16.8	16.2 C 16.4

<sup>1</sup> Annual rates per 1,000 estimated population.

<sup>2</sup> "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1917.

<sup>3</sup> Population estimated as of July 1, 1919.

<sup>4</sup> Data are based on statistics of 1915, 1916, and 1917.

Summary of information received by telegram from industrial insurance companies for week ended Oct. 18, 1919.

Policies in force.....	41,554,665
Number of death claims.....	6,198
Death claims per 1,000 policies in force, annual rate.....	7.8

# PREVALENCE OF DISEASE.

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

## UNITED STATES.

### CURRENT STATE SUMMARIES.

#### Telegraphic Reports for Week Ended Oct. 25, 1919.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.		CALIFORNIA—continued.	
	Cases.		Cases.
Diphtheria.....	14	Typhoid fever—Continued.	
Malaria.....	13	Madera.....	1
Mumps: Epidemic, Bullock County.		Redlands.....	1
Scarlet fever.....	6	Sacramento.....	1
Tuberculosis (pulmonary).....	6	Sacramento County.....	2
Typhoid fever.....	8	San Francisco.....	3
Veneral disease.....	111	San Joaquin County.....	1
Whooping cough.....	22	Santa Monica.....	2
		Shasta County.....	1
ARKANSAS.		CONNECTICUT.	
Chicken pox.....	20	Chicken pox.....	29
Diphtheria.....	38	Diphtheria:	
Influenza.....	33	Fairfield County—	
Hookworm.....	2	Bethel.....	1
Malaria.....	208	Bridgeport.....	14
Measles.....	2	Danbury.....	2
Pellagra.....	20	Danbury City.....	1
Scarlet fever.....	8	Newtown.....	1
Septic sore throat.....	10	Shelton.....	1
Smallpox.....	1	Stamford.....	2
Trachoma.....	1	Stratford.....	2
Tuberculosis.....	13	Trumbull.....	1
Typhoid fever.....	23	Hartford County—	
Whooping cough.....	6	Bristol.....	1
		East Windsor.....	1
CALIFORNIA.		Hartford.....	11
Cerebrospinal meningitis:		Manchester.....	2
Los Angeles County.....	1	New Britain.....	4
Influenza.....	40	West Hartford.....	1
Smallpox:		Litchfield County—	
Humboldt County.....	3	Salisbury.....	1
Jackson.....	1	New Haven County—	
Los Angeles.....	3	Branford.....	5
Manteca.....	4	Hamden.....	1
Riverside County.....	3	Meriden.....	5
Stockton.....	1	Millford.....	1
Typhoid fever:		New Haven.....	28
Fresno County.....	2	Orange.....	1
Clovis.....	1	Wallingford.....	12
Long Beach.....	2	Waterbury.....	17
Los Angeles.....	3		

CONNECTICUT—continued.		CONNECTICUT—continued.	
	Cases.		Cases.
Diphtheria—Continued.		Tuberculosis.....	29
New London County—		Typhoid fever:	
Jewett City.....	1	Hartford County—	
New London.....	4	Manchester.....	1
Norwich.....	3	New Britain.....	1
Windham County—		Litchfield County—	
Pomfret.....	1	Litchfield.....	1
Lethargic encephalitis.....	1	Middlesex County—	
Gonorrhea.....	19	Middletown.....	4
Influenza:		New Haven County—	
Fairfield County—		East Haven.....	6
Trumbull.....	1	Madison.....	1
Hartford County—		New Haven.....	2
New Britain.....	6	New London County—	
New Haven County—		New London.....	2
Meriden.....	2	Windham County—	
Tolland County—		Putnam.....	1
Mansfield.....	1	Woodstock.....	1
Malaria.....	1	Whooping cough.....	9
Measles:			
Fairfield County—		DELAWARE.	
Bridgeport.....	1	Diphtheria:	
Stamford.....	6	Clayton.....	1
Litchfield County—		Wilmington.....	2
Plymouth, epidemic.		Influenza:	
Thomaston.....	2	Hartly.....	1
New Haven County—		Laurel.....	1
Hamden.....	5	Wilmington.....	2
Meriden.....	1	Malaria:	
Milford.....	11	Smyrna.....	1
New Haven.....	16	Mumps.....	2
North Haven.....	5	Pneumonia:	
Seymour.....	8	Wilmington.....	1
Waterbury.....	7	Scarlet fever:	
Mumps.....	5	Georgetown.....	1
Paratyphoid fever.....	1	Seaford.....	1
Pneumonia.....	1	Townsend.....	1
Scarlet fever:		Wilmington.....	1
Fairfield County—		Smallpox:	
Stamford.....	2	Millsboro.....	4
Hartford County—		Tuberculosis:	
Bristol.....	1	Laurel.....	1
Hartford.....	10	Typhoid fever:	
Manchester.....	2	Dover.....	1
New Britain.....	7	Leipsic.....	1
West Hartford.....	1	New Castle.....	1
Litchfield County—		Seaford.....	2
Plymouth.....	4	Smyrna.....	1
Roxbury.....	5		
Thomaston.....	1	FLORIDA.	
Torrington.....	1	Diphtheria.....	16
Winchester.....	1	Dysentery.....	7
New Haven County—		Influenza.....	16
Ansonia.....	1	Malaria.....	49
Meriden.....	3	Pneumonia.....	6
Milford.....	1	Scarlet fever.....	5
New Haven.....	10	Typhoid fever.....	7
Wallingford.....	7		
Waterbury.....	8	GEORGIA.	
Tolland County—		Cerebrospinal meningitis.....	1
Rockville.....	3	Chicken pox.....	2
Septic sore throat.....	1	Diphtheria.....	100
Syphilis.....	62	Dysentery (amebic).....	5
Trachoma:		Dysentery (bacillary).....	6
New Haven County—		Gonorrhea.....	78
New Haven.....	1	Hookworm.....	4
		Influenza.....	34

## GEORGIA—continued.

	Cases.
Malaria.....	124
Measles.....	9
Mumps.....	6
Pneumonia (acute lobar).....	3
Polioimyelitis.....	1
Scarlet fever.....	12
Septic sore throat.....	12
Smallpox.....	7
Syphilis.....	32
Tuberculosis (pulmonary).....	9
Tuberculosis (other forms).....	1
Typhoid fever.....	28
Whooping cough.....	4

## ILLINOIS.

Cerebrospinal meningitis:	
Chicago.....	2
Diphtheria:	
Belleville.....	10
Chicago.....	230
Forest Park.....	4
Grayville.....	3
Harrisburg.....	3
Harvard.....	3
Marion County, Stephenson Township.....	3
Marion.....	3
Metropolis.....	3
Nokomis.....	3
Salem.....	31
Springfield.....	6
Streator.....	6
Scattering.....	77
Gonorrhea.....	325
Influenza:	
Chicago.....	38
Hanna City.....	7
Scattering.....	11
Lethargic encephalitis:	
Chicago.....	1
Polioimyelitis:	
Belvidere.....	2
Boone County, Spring Township.....	1
Chicago.....	1
Oak Park.....	1
Waukegan.....	1
Scarlet fever:	
Chicago.....	188
Girard.....	3
Mount Sterling.....	5
Oakland.....	3
Piatt County—Carlinville.....	3
Ste. Marie.....	5
Sidney.....	3
Scattering.....	65
Smallpox:	
Eldorado.....	3
Scattering.....	11
Syphilis.....	143

## INDIANA.

Cerebrospinal meningitis:	
Wabash County.....	1
Wayne County.....	1
Chaner 11.....	2

## INDIANA—continued.

	Cases.
Diphtheria:	
Allen County.....	13
Du Bois County.....	1
Gibson County.....	1
Grant County.....	1
Jackson County.....	5
Knox County.....	2
Kosciusko County.....	1
Lake County.....	4
La Porte County.....	1
Lawrence County.....	2
Madison County.....	1
Marion County.....	4
Newton County.....	3
Orange County.....	1
Parke County.....	2
Rush County.....	1
St. Joseph County.....	3
Tipton County.....	2
Vanderburg County.....	4
Vigo County.....	5
Warriek County.....	3
Wayne County.....	4
Gonorrhea.....	69
Influenza:	
Clay County.....	1
Dekalb County.....	3
Green County.....	2
Jasper County.....	1
Kosciusko County.....	1
Martin County.....	5
Monroe County.....	1
Steuben County.....	1
Wabash County.....	2
White County.....	3
Rabies in animals:	
Harrison County.....	1
Shelby County.....	1
Scarlet fever:	
Allen County.....	2
Blackford County.....	4
Cass County.....	16
Elkhart County.....	5
Grant County.....	1
Jasper County.....	1
Jennings County.....	1
Johnson County.....	1
Knox County.....	5
Lake County.....	2
Lawrence County.....	1
Monroe County.....	1
Morgan County.....	3
Newton County.....	1
Orange County.....	6
Rush County.....	1
Tippecanoe County.....	4
Vigo County.....	4
Wabash County.....	2
Warriek County.....	2
Wayne County.....	2
Wells County.....	1
White County.....	3
Smallpox:	
Cass County.....	1
Elkhart County.....	3

## INDIANA—continued.

Smallpox—Continued.	Cases.
Fountain County.....	3
Grant County.....	3
La Porte County.....	3
Madison County.....	2
Tippecanoe County.....	2
Tipton County.....	1
Syphilis.....	61
Typhoid fever:	
Allen County.....	3
Carroll County.....	1
Delaware County.....	1
Franklin County.....	2
Hendricks County.....	1
Jackson County.....	1
Johnson County.....	2
Knox County.....	1
Marshall County.....	1
Monroe County.....	1
Ripley County.....	3
Steuben County.....	1
Tippecanoe County.....	3
Tipton County.....	1
Wabash County.....	1
Wayne County.....	1
Wells County.....	2

## IOWA.

Cerebrospinal meningitis:	
Clay County.....	1
Keswick.....	1
Chancroid:	
Marshalltown.....	2
Chickenpox.....	1
Diphtheria:	
Albia.....	5
Benton County.....	2
Boone.....	1
Cedar Rapids.....	6
Council Bluffs.....	4
Davenport.....	5
Des Moines.....	2
Dubuque.....	1
Elma.....	1
Fort Dodge.....	3
Hamilton County.....	1
Hawarden.....	1
Mount Pleasant.....	1
Ottumwa.....	5
Panora.....	2
Polk County.....	3
Red Oak.....	1
Warren County.....	1
Gonorrhea.....	111
Influenza:	
Emmet County.....	2
Des Moines.....	1
Harlan.....	1
Knoxville.....	1
Measles:	
Boone.....	1
Council Bluffs.....	3
Mumps.....	1
Scarlet fever:	
Albia.....	4
Albion.....	1
Atlantic.....	2

## IOWA—continued.

Scarlet fever—Continued.	Cases.
Boone.....	9
Buena Vista County.....	1
Clearfield.....	1
Council Bluffs.....	8
Dallas County.....	5
Davenport.....	1
Decatur County.....	1
Des Moines.....	18
Dubuque.....	1
Elkhart.....	1
Jasper County.....	1
Mason City.....	2
O'Brien County.....	2
Pocahontas County.....	2
Smallpox:	
Audubon County.....	1
Davenport.....	5
Des Moines.....	1
Lost Nation.....	1
Ottumwa.....	1
Steamboat Rock.....	3
Syphilis.....	47
Whooping cough.....	3

## KANSAS.

Diphtheria.....	145
Influenza.....	29
Scarlet fever.....	87
Smallpox.....	24

## LOUISIANA.

Chancroid.....	19
Diphtheria.....	16
Gonorrhea.....	147
Influenza.....	106
Scarlet fever.....	14
Smallpox.....	4
Syphilis.....	98
Typhoid fever.....	16

## MAINE.

Cerebrospinal meningitis:	
Lewiston.....	1
Chancroid.....	2
Chickenpox.....	1
Diphtheria:	
Anson.....	1
Auburn.....	1
Fort Fairfield.....	3
Lewiston.....	15
Limington.....	2
Monmouth.....	1
Monticello.....	1
Milo.....	1
Sanford.....	1
Gonorrhea.....	59
Influenza:	
Lewiston.....	1
South Berwick.....	1
Westbrook.....	2
Mumps.....	3
Pneumonia:	
Bath.....	1
Scarlet fever:	
Auburn.....	1
Bath.....	1

## MAINE—continued.

	Cases.
Scarlet fever—Continued.	
Bar Harbor.....	4
Mechanic Falls.....	3
Portland.....	3
Winthrop.....	1
Smallpox:	
Auburn.....	2
Caswell Plantation.....	2
Lewiston.....	2
Monmouth.....	2
Syphilis.....	13
Tuberculosis.....	10
Typhoid fever:	
Bath.....	5
Brownfield.....	1
Fort Fairfield.....	2
Frenchville.....	2
Portland.....	5
Sanford.....	1
Waterville.....	3
Whooping cough.....	3

## MASSACHUSETTS.

Anthrax.....	1
Cerebrospinal meningitis.....	3
Chickenpox.....	89
Conjunctivitis (suppurative).....	5
Diphtheria.....	230
Dysentery.....	1
Gonorrhea.....	184
Influenza.....	33
Measles.....	156
Measles (German).....	11
Mumps.....	78
Ophthalmia neonatorum.....	24
Pellagra.....	1
Pneumonia (lobar).....	60
Poliomyelitis (anterior).....	4
Scarlet fever.....	173
Septic sore throat.....	10
Smallpox.....	1
Syphilis.....	62
Tuberculosis (pulmonary).....	155
Tuberculosis (other forms).....	11
Typhoid fever.....	23
Whooping cough.....	110

## MINNESOTA.

Chancroid.....	6
Cerebrospinal meningitis.....	1
Gonorrhea.....	162
Poliomyelitis.....	4
Smallpox (new foci):	
Lac qui Parle County, Dawson.....	1
Pennington County, Thief River Falls.....	1
Saint Louis County, Kelly Lake.....	2
Steele County, Owatonna City.....	2
Wabash County, Oakwood Township.....	1
Syphilis.....	73

## MONTANA.

Cerebrospinal meningitis:	
Huntley.....	1
Klein.....	1
Diphtheria.....	11
Influenza.....	17
Poliomyelitis.....	1

## MONTANA—continued.

	Cases.
Scarlet fever.....	13
Smallpox.....	6
Typhoid fever.....	8

## NEW JERSEY.

Influenza.....	38
Pneumonia.....	33

## NEW YORK.

(Exclusive of New York City.)

Cerebrospinal meningitis:	
Schenectady.....	1
Syracuse.....	1
Tarrytown.....	1
Diphtheria:	
Erie County.....	137
Scattering.....	203
Gonorrhea.....	64
Influenza.....	27
Measles.....	58
Pneumonia.....	65
Poliomyelitis:	
Oswego.....	1
Stockport.....	1
West Seneca.....	1
West Union.....	1
Scarlet fever.....	162
Syphilis.....	291
Typhoid fever.....	41
Whooping cough.....	150

## NORTH CAROLINA.

Cerebrospinal meningitis.....	2
Chancroid.....	17
Chicken pox.....	27
Cholera infantum.....	2
Diphtheria.....	184
Gonorrhea.....	99
Measles.....	12
Measles (German).....	6
Ophthalmia neonatorum.....	2
Pneumonia (broncho).....	7
Pneumonia (lobar).....	4
Poliomyelitis.....	4
Scarlet fever.....	71
Septic sore throat.....	16
Smallpox.....	38
Syphilis.....	66
Typhoid fever.....	47
Whooping cough.....	115

## OHIO.

Diphtheria:	
Cincinnati.....	27
Lima.....	17
Scarlet fever:	
Scioto County, Otway.....	6
Typhoid fever:	
Mount Vernon.....	6

## VERMONT.

No outbreak or unusual prevalence.

## WASHINGTON.

Chicken pox.....	54
Diphtheria.....	54
Gonorrhea.....	35



WASHINGTON—continued.		WEST VIRGINIA—continued.	
	Cases.		Cases.
Influenza.....	2	Scarlet fever—Continued.	
Measles.....	9	Martinsburg.....	1
Mumps.....	33	Montgomery.....	1
Pneumonia.....	2	Moorefield.....	1
Scarlet fever.....	68	Morgantown.....	1
Smallpox.....	63	Salem.....	1
Syphilis.....	11	Smallpox:	
Typhoid fever.....	6	Clarksburg.....	3
Whooping cough.....	30	Huntington.....	19
		Montgomery.....	1
		Morgantown.....	1
		Typhoid fever:	
		Beckley.....	1
		Parsons.....	1
		Wheeling.....	3
		Williamson.....	1
		WISCONSIN.	
		Chaneroid.....	4
		Chicken pox.....	20
		Diphtheria:	
		Milwaukee.....	63
		Scattering.....	26
		Erysipelas:	
		Milwaukee.....	2
		Scattering.....	1
		Gonorrhea.....	78
		Influenza.....	5
		Measles:	
		Milwaukee.....	9
		Scattering.....	14
		Scarlet fever:	
		Milwaukee.....	30
		Scattering.....	57
		Smallpox:	
		Milwaukee.....	9
		Scattering.....	30
		Syphilis.....	3
		Tuberculosis:	
		Milwaukee.....	25
		Scattering.....	17
		Typhoid fever:	
		Milwaukee.....	1
		Scattering.....	2
		Whooping cough.....	45

## SUMMARY OF CASES REPORTED MONTHLY BY STATES.

Tables showing by counties the reported cases of cerebrospinal meningitis, malaria, pellagra, poliomyelitis, smallpox, and typhoid fever are published under the names of these diseases. (See names of these and other diseases in the table of contents.)

The following monthly State reports include only those which were received during the current week. These reports appear each week as received.

State.	Cerebro-spinal menin-gitis.	Diph-theria.	Malaria.	Mea-sles.	Pel-lagra.	Polio-mye-litis.	Scarlet fever.	Small-pox.	Ty-phoid fever.
September, 1919.									
Connecticut.....	2	249	.....	84	.....	1	129	.....	67
Louisiana.....	4	56	239	11	13	3	21	19	102
Michigan.....	.....	658	.....	92	.....	26	383	95	132
New Jersey.....	15	496	10	70	.....	7	196	1	111
North Carolina.....	10	660	.....	146	.....	8	242	72	530
Pennsylvania.....	9	1,668	2	718	.....	29	776	8	655
South Carolina.....	.....	419	86	54	13	4	38	3	18
Rhode Island.....	2	63	.....	12	.....	.....	42	.....	17



**ANTHRAX.**

Denver, Colo., and Philadelphia, Pa.

During the week ended October 11, 1919, one case of anthrax was reported at Denver, Colo., and one case and one death at Philadelphia, Pa.

**CEREBROSPINAL MENINGITIS.**

State Reports for September, 1919.

Place.	New cases reported.	Place.	New cases reported.
<b>Connecticut:</b>		<b>North Carolina—Continued.</b>	
Fairfield County—		Mecklenburg County.....	1
Bridgeport.....	1	Montgomery County.....	1
New Haven County—		Northampton County.....	1
New Haven.....	1	Sampson County.....	2
Total.....	2	Surry County.....	1
<b>Louisiana:</b>		Total.....	10
Caddo Parish.....	2	<b>Pennsylvania:</b>	
Orleans Parish.....	2	Allegheny County.....	1
Total.....	4	Berks County.....	1
<b>New Jersey:</b>		Blair County.....	1
Bergen County.....	3	Fayette County.....	1
Essex County.....	7	L. y. oming County.....	1
Hudson County.....	1	Philadelphia County.....	2
Monmouth County.....	1	Somerset County.....	1
Passaic County.....	2	Westmoreland County.....	1
Union County.....	1	Total.....	9
Total.....	15	<b>Rhode Island:</b>	
<b>North Carolina:</b>		East Providence (town).....	1
Brunswick County.....	3	Warren (town).....	1
Edgecombe County.....	1	Total.....	2

**City Reports for Week Ended Oct. 11, 1919.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	1	.....	Newark, N. J.....	.....	1
Baltimore, Md.....	1	1	New York, N. Y.....	2	2
Billings, Mont.....	1	.....	Norfolk, Va.....	1	1
Boston, Mass.....	2	.....	Paterson, N. J.....	1	.....
Chicago, Ill.....	4	1	Philadelphia, Pa.....	1	1
Dallas, Tex.....	1	.....	Sacramento, Calif.....	.....	1
Denver, Colo.....	1	.....	St. Louis, Mo.....	4	1
Detroit, Mich.....	1	.....	San Francisco, Calif.....	1	1
Grand Rapids, Mich.....	.....	1	Schenectady, N. Y.....	1	.....
Long Branch, N. J.....	.....	1	Stockton, Calif.....	1	1
Lowell, Mass.....	1	.....	Wheeling, W. Va.....	.....	1
Mount Vernon, N. Y.....	.....	1			

**DENGUE.**

Charleston, S. C.

On October 28, 1919, dengue was reported prevalent in Charleston, S. C.

**DIPHTHERIA.**

See Telegraphic weekly reports from States, p. 2452; Monthly summaries by States, p. 2457; and Weekly reports from cities, p. 2468.

## INFLUENZA.

## Cases Reported by State Health Officers, Week Ended Oct. 25, 1919.

Arkansas.....	33	Louisiana.....	106
California.....	40	Maine.....	4
Connecticut.....	10	Massachusetts.....	33
Delaware.....	4	Montana.....	17
Florida.....	16	New Jersey.....	38
Georgia.....	34	New York.....	27
Illinois.....	56	Washington.....	2
Iowa.....	5	West Virginia.....	6
Kansas.....	29	Wisconsin.....	5

## LEPROSY.

## Los Angeles, Calif., Week Ended Oct. 11, 1919.

During the week ended October 11, 1919, 2 cases of leprosy were reported at Los Angeles, Calif.

## MALARIA.

## State Reports for September, 1919.

Place.	New cases reported.	Place.	New cases reported.
<b>Louisiana:</b>		<b>New Jersey:</b>	
Acadia Parish.....	25	Essex County.....	5
Assumption Parish.....	7	Hudson County.....	1
Avoyelles Parish.....	4	Passaic County.....	3
Bienville Parish.....	14	Somerset County.....	1
Caddo Parish.....	10	Total.....	10
Calcasieu Parish.....	8	<b>Pennsylvania:</b>	
Caldwell Parish.....	1	Allegheny County.....	1
Concordia Parish.....	3	Warren County.....	1
DeSoto Parish.....	13	Total.....	2
East Carroll Parish.....	1	<b>South Carolina:</b>	
Evangeline Parish.....	4	Anderson County.....	1
Grant Parish.....	10	Beaufort County.....	12
Iberville Parish.....	4	Chester County.....	10
Lafayette Parish.....	2	Chesterfield County.....	3
Lincoln Parish.....	3	Clarendon County.....	9
Orleans Parish.....	3	Darlington County.....	1
Ouachita Parish.....	30	Fairfield County.....	2
Rapides Parish.....	5	Lexington County.....	2
Sabine Parish.....	2	Marion County.....	30
St. Charles Parish.....	1	Richland County.....	1
St. John Parish.....	8	Union County.....	10
St. Landry Parish.....	15	York County.....	5
St. Martin Parish.....	2	Total.....	86
St. Mary Parish.....	22		
St. Tammany Parish.....	9		
Tangipahoa Parish.....	3		
Union Parish.....	1		
Vermilion Parish.....	8		
Vernon Parish.....	3		
Washington Parish.....	3		
Webster Parish.....	1		
West Feliciana Parish.....	5		
Total.....	239		

## MALARIA—Continued.

## City Reports for Week Ended Oct. 11, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	1	.....	Montgomery, Ala.....	.....	1
Anniston, Ala.....	1	.....	New Orleans, La.....	1	1
Atlanta, Ga.....	1	.....	Norfolk, Va.....	1	.....
Baltimore, Md.....	3	.....	Oklahoma City, Okla.....	.....	1
Birmingham, Ala.....	4	.....	Piqua, Ohio.....	1	.....
Boston, Mass.....	1	.....	Richmond, Va.....	1	.....
Brunswick, Ga.....	1	.....	Rome, Ga.....	2	.....
Charleston, S. C.....	.....	2	Savannah, Ga.....	6	1
Columbus, Ga.....	5	1	Tuscaloosa, Ala.....	3	.....
Dallas, Tex.....	18	.....	Waco, Tex.....	1	.....
Kansas City, Kans.....	1	.....	Wilmington, N. C.....	1	.....

## MEASLES.

See Telegraphic weekly reports from States, p. 2452; Monthly summaries by States, p. 2457; and Weekly reports from cities, p. 2468.

## PELLAGRA.

## State Reports for September, 1919.

Place.	New cases reported.	Place.	New cases reported.
<b>Louisiana:</b>		<b>South Carolina:</b>	
Bienville Parish.....	4	Abbeville County.....	1
Caddo Parish.....	1	Anderson County.....	1
Claiborne Parish.....	1	Cherokee County.....	1
Concordia Parish.....	1	Chester County.....	3
De Soto Parish.....	1	Marion County.....	3
East Baton Rouge Parish.....	1	Richland County.....	1
Orleans Parish.....	4	Spartanburg County.....	1
Total.....	13	York County.....	2
		Total.....	13

## City Reports for Week Ended Oct. 11, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.....	1	.....	Montgomery, Ala.....	.....	3
Birmingham, Ala.....	1	1	Nashville, Tenn.....	1	.....
Charleston, S. C.....	.....	1	Raleigh, N. C.....	.....	1
Columbus, Ga.....	1	.....	Richmond, Va.....	1	1
Dallas, Tex.....	1	.....	Winston-Salem, N. C.....	1	1
Galveston, Tex.....	.....	1			

## PNEUMONIA.

## City Reports for Week Ended Oct. 11, 1919.

Place.	Lobar.		All forms.		Place.	Lobar.		All forms.	
	Cases.	Deaths.	Cases.	Deaths.		Cases.	Deaths.	Cases.	Deaths.
Adams, Mass.		1			Manitowoc, Wis.	1			
Albany, N. Y.	3				Milwaukee, Wis.		2		
Anderson, Ind.		2			Minneapolis, Minn.				1
Atlanta, Ga.				3	Montclair, N. J.	1			
Baltimore, Md.	8	7			Nashville, Tenn.		1		
Bayonne, N. J.			1		Newark, N. J.	20	3		
Beatrice, Nebr.		1			New Bedford, Mass.	1	1		
Boston, Mass.	15	2			New Britain, Conn.		2		
Brookline, Mass.	2				New Haven, Conn.				3
Brunswick, Ga.	1	1			New York, N. Y.			29	69
Butte, Mont.	1				Norfolk, Va.	1			
Cairo, Ill.				1	Oakland, Calif.			3	2
Cambridge, Mass.	2	2			Oak Park, Ill.		2		
Camden, N. J.	1				Ogden, Utah	1			
Charleston, S. C.				1	Oklahoma City, Okla.				3
Charleston, W. Va.	1				Omaha, Nebr.				3
Charlotte, N. C.		1			Orange, N. J.	1	1		
Chattanooga, Tenn.			1		Oshkosh, Wis.				1
Chelsea, Mass.	2	1			Passaic, N. J.			1	1
Chicago, Ill.			98	36	Paterson, N. J.			7	
Cincinnati, Ohio.		2			Peoria, Ill.				1
Cleveland, Ohio.	9	15			Pittsfield, Mass.	1	1		
Clinton, Mass.		1			Plainfield, N. J.		1		
Columbus, Ohio.		1			Plymouth, Mass.		1		
Danville, Ill.		1			Pontiac, Mich.	2	1		
Dayton, Ohio.	1	1			Portland, Oreg.		4		7
Denver, Colo.		2		5	Providence, R. I.		1		
Detroit, Mich.	6	8	12	14	Quincy, Mass.	1	1		
Duluth, Minn.	2	2			Reno, Nev.	1	1		
East Orange, N. J.			1		Riverside, Calif.	1			
Elizabeth, N. J.				2	Rochester, N. Y.	4	3		
Elmira, N. Y.	1				Rock Island, Ill.		1		
Everett, Mass.	2	1			Sacramento, Calif.				1
Flint, Mich.	1				Saginaw, Mich.				1
Fort Worth, Tex.	2	2			St. Joseph, Mo.		2		
Grand Rapids, Mich.	1				Salt Lake City, Utah		1		
Great Falls, Mont.	1	1			San Bernardino, Calif.		1		
Hammond, Ind.		1			San Francisco, Calif.	8	2		
Hartford, Conn.	1	1			Somerville, Mass.	1	1		
Haverhill, Mass.	1				Springfield, Mass.	4			
Jamestown, N. Y.			3	1	Syracuse, N. Y.				1
Janesville, Wis.		1			Taunton, Mass.		1		
Kankakee, Ill.	1				Terre Haute, Ind.				2
Kansas City, Mo.				7	Toledo, Ohio.	1			
Lawrence, Mass.	3	1			Trenton, N. J.	2	2		
Lexington, Ky.		1			Troy, N. Y.	1			
Long Beach, Calif.	1				Washington, D. C.				7
Los Angeles, Calif.			16	5	White Plains, N. Y.		2		
Louisville, Ky.				2	Wilmington, Del.		2		
Lynn, Mass.	2	1			Wilmington, N. C.		1		
Macon, Ga.				2	Worcester, Mass.	1			
Malden, Mass.	1				Yonkers, N. Y.		2		
Manchester, N. H.	1	1							

## POLIOMYELITIS (INFANTILE PARALYSIS).

## State Reports for September, 1919.

Place.	New cases reported.	Place.	New cases reported.
<b>Connecticut:</b>			
Fairfield County—		<b>Michigan:</b>	
Greenwich.....	1	Allegan County—	
<b>Louisiana:</b>		Manlius Township.....	1
Allen Parish.....	2	Alpena County—	
Jackson Parish.....	1	Ossineke Township.....	1
<b>Total.....</b>		Clinton County—	
	3	Bingham Township.....	1
		Elsie.....	1

**POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.****State Reports for September, 1919—Continued.**

Place.	New cases reported.	Place.	New cases reported.
<b>Michigan—Continued.</b>		<b>North Carolina—Continued.</b>	
Genesee County—		Catawba County.....	1
Mount Morris.....	1	Columbus County.....	1
Flint.....	1	Durham County.....	1
Gratiot County—		Harnett County.....	1
Elba Township.....	1	Johnston County.....	1
Summer Township.....	1	Watauga County.....	1
St. Louis.....	1		
Isabella County—		<b>Total.....</b>	<b>8</b>
I in oln Township.....	1		
Lapeer County—		<b>Pennsylvania:</b>	
Arcada Township.....	1	Adams County.....	3
Macomb County—		Allegheny County.....	4
Mount Clemens.....	1	Berk County.....	1
Muskegon County—		Butler County.....	1
Muskegon Township.....	1	Cambria County.....	1
Whitehall.....	2	Columbia County.....	1
Oakland County—		Delaware County.....	1
Pontiac.....	1	Jefferson County.....	2
Presque Isle County—		In erne County.....	1
Onaway.....	1	Montgomery County.....	1
Wayne County—		Montour County.....	2
Hamtramach.....	1	Philadelphia County.....	2
Highland Park.....	1	Somerset County.....	2
Detroit.....	3	Tioga County.....	1
<b>Total.....</b>	<b>26</b>	Warren County.....	1
		Wayne County.....	1
<b>New Jersey:</b>		Westmoreland County.....	2
Bergen County.....	1	York County.....	2
Burlington County.....	1	<b>Total.....</b>	<b>29</b>
Essex County.....	2		
Mercer County.....	1	<b>South Carolina:</b>	
Passaic County.....	1	Charleston County.....	1
Somerset County.....	1	Pickens County.....	2
<b>Total.....</b>	<b>7</b>	Richland County.....	1
		<b>Total.....</b>	<b>4</b>
<b>North Carolina:</b>			
Carteret County.....	1		
Caswell County.....	1		

**City Reports for Week Ended Oct. 11, 1919.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.....	3		Lima, Ohio.....	1	1
Beloit, Wis.....	1	1	Lincoln, Nebr.....	1	
Birmingham, Ala.....	1		Los Angeles, Calif.....	1	
Bloomfield, N. J.....	1		Lynn, Mass.....	1	
Chicago, Ill.....	1		Milwaukee, Wis.....	1	
Cleveland, Ohio.....	2		Minneapolis, Minn.....	1	
Columbus, Ohio.....	1		Newark, N. J.....		1
Denver, Colo.....	2		New York, N. Y.....	2	
Des Moines, Iowa.....	1		Peoria, Ill.....	1	
Eau Claire, Wis.....	1		Piqua, Ohio.....	1	1
Evanston, Ill.....	1		Pittsburgh, Pa.....	1	
Fort Worth, Tex.....	1		Toledo, Ohio.....	6	

**RABIES IN ANIMALS.****City Reports for Week Ended Oct. 11, 1919.**

Place.	Cases.	Place.	Cases.
Dayton, Ohio.....	1	Reno, Nev.....	1
Eureka, Calif.....	5	West Orange, N. J.....	1
Kansas City, Mo.....	1		

## SCARLET FEVER.

See Telegraphic weekly reports from States, p. 2452; Monthly summaries by States, p. 2457; and Weekly reports from cities, p. 2468.

## SMALLPOX.

## State Reports for September, 1919—Vaccination Histories.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Michigan:						
Allegan County—						
Leighton Township.....	2				2	
Antrim County—						
Jordan Township.....	1		1			
Calhoun County—						
Albion.....	1				1	
Battle Creek.....	6		4		2	
Charlevoix County—						
Boyne City.....	1				1	
East Jordan.....	5				5	
Chippewa County—						
Drummond Township....	3				3	
Clare County—						
Grant Township.....	4		4			
Clinton County—						
Rath Township.....	1				1	
Eaton County—						
Eaton Rapids Township..	6				6	
Gogebic County—						
Bessemer Township.....	2		1		1	
Bessemer.....	8		2		4	2
Ironwood.....	5		1		4	
Grafton County—						
North Shade Township...	2				2	
Houghton County—						
Adams Township.....	2				2	
Houghton.....	1				1	
Ingham County—						
Lansing.....	3				2	1
Iron County—						
Crystal Falls.....	1				1	
Isabella County—						
Fremont Township.....	1					1
Kalamazoo County—						
Clintax Township.....	1				1	
Kalamazoo.....	1				1	
Kent County—						
Grand Rapids.....	6					6
Lapeer County—						
Attica Township.....	2				2	
Lenawee County—						
Seneca Township.....	1		1			
Mecosta County—						
Martling Township.....	3				3	
Big Rapids.....	5		3		2	
Monroe County—						
Monroe.....	1				1	
Oakland County—						
Bloomfield Township....	1				1	
Pontiac.....	2				2	
Osego County—						
Gaylord.....	1				1	
Van Buren County—						
Decatur.....	5		4		1	
Washtenaw County—						
Ann Arbor.....	1				1	
Wayne County—						
Detroit.....	10				7	3
Total.....	95		21		61	13



**SMALLPOX—Continued.**  
**State Reports for September, 1919.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
<b>Louisiana:</b>			<b>North Carolina—Continued.</b>		
Caddo Parish.....	3	.....	Perquimans County.....	1	.....
East Baton Rouge Parish.....	3	.....	Pitt County.....	8	.....
East Carroll Parish.....	1	.....	Randolph County.....	2	.....
East Feliciana Parish.....	1	.....	Richmond County.....	4	.....
Lafayette Parish.....	4	.....	Robeson County.....	1	.....
Orleans Parish.....	1	.....	Rockingham County.....	6	.....
St. James Parish.....	6	.....	Rowan County.....	1	.....
<b>Total.....</b>	<b>19</b>	<b>.....</b>	Rutherford County.....	6	.....
<b>New Jersey:</b>			Stanley County.....	1	.....
Atlantic County.....	1	.....	Washington County.....	2	.....
<b>North Carolina:</b>			Wilkes County.....	1	.....
Ashe County.....	5	.....	Yancey County.....	1	.....
Beaufort County.....	9	.....	<b>Total.....</b>	<b>72</b>	<b>.....</b>
Catawba County.....	1	.....	<b>Pennsylvania:</b>		
Cumberland County.....	2	.....	Allegheny County.....	1	.....
Forsyth County.....	2	.....	Beaver County.....	4	.....
Franklin County.....	1	.....	Cambria County.....	4	.....
Gates County.....	1	.....	Fayette County.....	1	.....
Granville County.....	1	.....	Mercer County.....	1	.....
Greene County.....	4	.....	<b>Total.....</b>	<b>8</b>	<b>.....</b>
Johnston County.....	1	.....	<b>South Carolina:</b>		
Madison County.....	1	.....	Greenville County.....	3	.....
McDowell County.....	9	.....			
Nash County.....	1	.....			

**City Reports for Week Ended Oct. 11, 1919.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
<b>Atlanta, Ga.....</b>	<b>5</b>	<b>.....</b>	<b>Norfolk, Va.....</b>	<b>2</b>	<b>.....</b>
Beatrice, Nebr.....	1	.....	Norwood, Ohio.....	1	.....
Bellingham, Wash.....	4	.....	Oakland, Calif.....	1	.....
Boise, Idaho.....	2	.....	Ogden, Utah.....	1	.....
Cincinnati, Ohio.....	1	.....	Omaha, Nebr.....	5	.....
Colorado Springs, Colo.....	1	.....	Oshkosh, Wis.....	1	.....
Davenport, Iowa.....	10	.....	Parkersburg, W. Va.....	1	.....
Denver, Colo.....	3	.....	Parsons, Kans.....	1	.....
Detroit, Mich.....	1	.....	Portland, Me.....	1	.....
East Cleveland, Ohio.....	1	.....	Portland, Oreg.....	13	.....
Fond du Lac, Wis.....	5	.....	Racine, Wis.....	2	.....
Grand Rapids, Mich.....	1	.....	Reno, Nev.....	1	.....
Green Bay, Wis.....	3	.....	St. Joseph, Mo.....	6	.....
Ironton, Ohio.....	1	.....	St. Paul, Minn.....	3	.....
Kokomo, Ind.....	5	.....	San Diego, Calif.....	1	.....
La Fayette, Ind.....	1	.....	San Francisco, Calif.....	1	.....
Lincoln, Nebr.....	4	.....	Seattle, Wash.....	14	.....
Logansport, Ind.....	1	.....	Spokane, Wash.....	4	.....
Long Beach, Calif.....	1	.....	Walla Walla, Wash.....	4	.....
Los Angeles, Calif.....	5	.....	Wausau, Wis.....	5	.....
Marshalltown, Iowa.....	6	.....	Yakima, Wash.....	1	.....
Milwaukee, Wis.....	3	.....	Youngstown, Ohio.....	1	.....
Minneapolis, Minn.....	1	.....			

**TETANUS.**

**City Reports for Week Ended Oct. 11, 1919.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
<b>Baltimore, Md.....</b>	<b>.....</b>	<b>2</b>	<b>Nashua, N. H.....</b>	<b>1</b>	<b>1</b>
Boston, Mass.....	1	.....	New York, N. Y.....	.....	3
Cleveland, Ohio.....	.....	1	Oklahoma City, Okla.....	.....	.....
Cumberland, Md.....	1	.....	Philadelphia, Pa.....	2	.....
Detroit, Mich.....	1	.....	St. Louis, Mo.....	1	.....
Los Angeles, Calif.....	1	1	Worcester, Mass.....	1	.....
Muscatine, Iowa.....	1	.....	Youngstown, Ohio.....	1	1



## TUBERCULOSIS.

See Telegraphic weekly reports from States, p. 2452; and Weekly reports from cities, p. 2468.

## TYPHOID FEVER.

## State Reports for September, 1919.

Place.	New cases reported.	Place.	New cases reported.
<b>Connecticut:</b>		<b>Michigan:</b>	
Fairfield County—		Barry County—	
Bridgeport.....	1	Baltimore Township.....	1
Danbury.....	1	Maple Grove Township.....	1
Norwalk.....	5	Bay County—	
Stamford.....	1	Bay City.....	3
Weston.....	1	Benzie County—	
Hartford County—		Frankfort.....	1
Bristol.....	1	Berrien County—	
Burlington.....	1	Benton Township.....	1
Hartford.....	5	Coloma Township.....	1
Manchester.....	2	St. Johns.....	1
New Britain.....	1	Calhoun County—	
Litchfield County—		Battle Creek.....	3
Sharon.....	1	Cheboygan County—	
Thomaston.....	1	Forest Township.....	4
Torrington.....	3	Crawford County—	
Middlesex County—		Grayling.....	1
Middlefield.....	1	Dickinson County—	
Portland.....	1	Iron Mountain.....	1
New Haven County—		Emmet County—	
East Haven.....	1	Petoskey.....	1
Meriden.....	3	Genesee County—	
Naugatuck.....	2	Montrose.....	3
New Haven.....	14	Flint.....	12
Orange.....	1	Gladwin County—	
Waterbury.....	9	Sage Township.....	1
New London County—		Sherwin Township.....	1
Groton.....	1	Gratiot County—	
New London.....	6	Bethany Township.....	1
Norwich.....	1	LaFayette Township.....	1
Windham County—		Alma.....	6
Killingly.....	2	Hillsdale County—	
Willimantic.....	1	Allen Township.....	3
Total.....	67	Jefferson Township.....	3
		Litchfield.....	1
<b>Louisiana:</b>		Huron County—	
Acadia Parish.....	1	Brookfield Township.....	1
Ascension Parish.....	2	Sebewaing Township.....	1
Avoynes Parish.....	3	Siegel Township.....	1
Beauregard Parish.....	2	Ingham County—	
Bienville Parish.....	3	Williamston.....	3
Caddo Parish.....	3	Lansing.....	13
Calcasieu Parish.....	2	Ionia County—	
Claiborne Parish.....	1	Otisco Township.....	1
East Baton Rouge Parish.....	1	Iosco County—	
East Carroll Parish.....	2	East Tawas.....	1
East Feliciana Parish.....	2	Whittemore.....	1
Iberville Parish.....	12	Jackson County—	
Jackson Parish.....	2	Concord Township.....	1
Jefferson Parish.....	3	Jackson.....	2
Lafayette Parish.....	2	Kalamazoo County—	
Madison Parish.....	1	Cooper Township.....	1
Orleans Parish.....	17	Kalamazoo.....	3
Ouachita Parish.....	5	Kent County—	
Plaquemines Parish.....	3	Grand Rapids.....	3
Pointe Coupee Parish.....	3	Grand Rapids Township.....	3
Rapides Parish.....	5	Lapeer County—	
Richland Parish.....	3	Rich Township.....	1
St. Charles Parish.....	1	Leelanau County—	
St. James Parish.....	3	Leelanau Township.....	1
St. John Parish.....	2	Lenawee County—	
St. Landry Parish.....	1	Cgden Township.....	1
St. Mary Parish.....	2	Macomb County—	
Tangipahoa Parish.....	1	Chesterfield Township.....	1
Terrebonne Parish.....	1	Mt. Clemens.....	1
Union Parish.....	1	Manistee County—	
Vermilion Parish.....	9	Cleon Township.....	1
Washington Parish.....	3	Manistee.....	1
Total.....	102	Marquette County—	
		Marquette.....	4
		Midland County—	
		Jerome Township.....	1

## TYPHOID FEVER—Continued.

## State Reports for September, 1919—Continued.

Place.	New cases reported.	Place.	New cases reported.
<b>Michigan—Continued.</b>		<b>North Carolina—Continued.</b>	
Newaygo County—		Franklin County.....	1
Dayton Township.....	4	Gaston County.....	33
Oakland County—		Gates County.....	2
Novi Township.....	1	Graham County.....	2
Birmingham.....	1	Granville County.....	1
Pontiac.....	1	Guilford County.....	18
Ontonagon County—		Halifax County.....	8
Ontonagon.....	1	Haywood County.....	6
Saginaw County—		Henderson County.....	13
Albee Township.....	1	Hertford County.....	1
Saginaw.....	7	Iredell County.....	11
St. Clair County—		Johnston County.....	8
Mussey Township.....	1	Lee County.....	2
Sanilac County—		Lenoir County.....	2
Deckerville.....	1	Lincoln County.....	76
Tuscola County—		Macon County.....	2
Akron.....	1	Madison County.....	14
Van Buren County—		Martin County.....	6
Hartford Township.....	2	Mecklenburg County.....	15
South Haven.....	1	Mitchell County.....	1
Washtenaw County—		Nash County.....	2
Ann Arbor.....	5	New Hanover County.....	2
Wayne County—		Northampton County.....	1
Nankin Township.....	1	Onslow County.....	3
Romulus Township.....	1	Orange County.....	4
Ecorse.....	1	Pasquotank County.....	17
Highland Park.....	2	Pender County.....	1
Wexford County—		Perquimans County.....	5
Cadillac.....	2	Person County.....	3
Total.....	132	Pitt County.....	10
<b>New Jersey:</b>		Randolph County.....	10
Bergen County.....	5	Richmond County.....	3
Burlington County.....	2	Robeson County.....	9
Camden County.....	14	Rockingham County.....	5
Cape May County.....	1	Rowan County.....	10
Cumberland County.....	2	Rutherford County.....	5
Essex County.....	41	Sampson County.....	9
Hudson County.....	7	Scotland County.....	1
Mercer County.....	7	Stanly County.....	6
Middlesex County.....	5	Surry County.....	3
Monmouth County.....	5	Swain County.....	4
Morris County.....	5	Tyrrell County.....	2
Passaic County.....	11	Union County.....	2
Salem County.....	1	Wake County.....	7
Union County.....	5	Warren County.....	1
Total.....	111	Watauga County.....	4
<b>North Carolina:</b>		Wayne County.....	3
Alamance County.....	3	Wilkes County.....	5
Alexander County.....	1	Wilson County.....	4
Anson County.....	1	Yadkin County.....	3
Ashe County.....	12	Yancey County.....	4
Beaufort County.....	3	Total.....	530
Bertie County.....	1	<b>Pennsylvania:</b>	
Bladen County.....	2	Adams County.....	3
Buncombe County.....	13	Allegheny County.....	60
Burke County.....	6	Armstrong County.....	16
Cabarrus County.....	6	Beaver County.....	12
Caldwell County.....	5	Bedford County.....	17
Camden County.....	3	Berks County.....	7
Carteret County.....	10	Blair County.....	15
Caswell County.....	1	Bradford County.....	3
Catawba County.....	15	Bucks County.....	2
Chatham County.....	2	Butler County.....	6
Cherokee County.....	4	Cambria County.....	19
Chowan County.....	4	Centre County.....	9
Clay County.....	5	Chester County.....	4
Cleveland County.....	5	Clarion County.....	4
Columbus County.....	2	Clearfield County.....	19
Cumberland County.....	2	Columbia County.....	8
Davidson County.....	2	Crawford County.....	3
Duplin County.....	5	Cumberland County.....	8
Durham County.....	15	Dauphin County.....	4
Edgecombe County.....	19	Delaware County.....	10
Forsyth County.....	22	Erie County.....	7
		Fayette County.....	55
		Franklin County.....	16

## TYPHOID FEVER—Continued.

## State Reports for September, 1919—Continued.

Place.	New cases reported.	Place.	New cases reported.
Pennsylvania—Continued.		Pennsylvania—Continued.	
Fulton County.....	2	Union County.....	2
Greene County.....	2	Venango County.....	5
Huntingdon County.....	15	Warren County.....	4
Indiana County.....	12	Washington County.....	20
Jefferson County.....	7	Wayne County.....	1
Juniata County.....	2	Westernmoreland County.....	24
Lackawanna County.....	3	York County.....	12
Lancaster County.....	11	Total.....	655
Lawrence County.....	2	Rhode Island:	
Lebanon County.....	8	Providence.....	16
Lehigh County.....	14	Pawtucket.....	1
Luzerne County.....	14	Total.....	17
Lycoming County.....	5	South Carolina:	
Mercer County.....	3	Abbeville County.....	2
Mifflin County.....	6	Beaufort County.....	1
Monroe County.....	1	Greenville County.....	5
Montgomery County.....	12	Laurens County.....	1
Montour County.....	3	Newberry County.....	2
Northampton County.....	2	Richland County.....	2
Northumberland County.....	4	Spartanburg County.....	2
Perry County.....	7	York County.....	3
Philadelphia County.....	102	Total.....	18
Potter County.....	7		
Schuylkill County.....	4		
Snyder County.....	2		
Somerset County.....	25		
Tioga County.....	5		

## City Reports for Week Ended Oct. 11, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	2	.....	Fall River, Mass.....	1	.....
Albany, N. Y.....	1	.....	Findlay, Ohio.....	3	.....
Allentown, Pa.....	1	.....	Flint, Mich.....	2	.....
Altoona, Pa.....	1	.....	Galesburg, Ill.....	1	.....
Ann Arbor, Mich.....	2	1	Grand Rapids, Mich.....	1	.....
Atlanta, Ga.....	4	2	Great Falls, Mont.....	2	.....
Atlantic City, N. J.....	1	.....	Green Bay, Wis.....	1	1
Baltimore, Md.....	2	1	Haverhill, Mass.....	1	.....
Bedford, Ind.....	1	.....	Independence, Mo.....	1	.....
Belleville, N. J.....	1	.....	Indianapolis, Ind.....	5	.....
Billings, Mont.....	3	1	Ironton, Ohio.....	2	.....
Birmingham, Ala.....	5	.....	Jersey City, N. J.....	4	.....
Boston, Mass.....	6	.....	Johnstown, Pa.....	1	.....
Cambridge, Mass.....	2	.....	Kansas City, Kans.....	1	.....
Camden, N. J.....	1	.....	Kansas City, Mo.....	4	.....
Canton, Ohio.....	1	.....	Keene, N. H.....	1	.....
Charleston, S. C.....	4	1	Knoxville, Tenn.....	1	1
Charleston, W. Va.....	.....	1	Kokomo, Ind.....	1	.....
Chattanooga, Tenn.....	.....	1	La Crosse, Wis.....	.....	1
Chester, Pa.....	1	.....	Lima, Ohio.....	1	.....
Cheyenne, Wyo.....	1	1	Long Branch, N. J.....	1	.....
Chicago, Ill.....	6	.....	Los Angeles, Calif.....	6	.....
Cincinnati, Ohio.....	4	2	Louisville, Ky.....	5	.....
Cleveland, Ohio.....	2	.....	Lowell, Mass.....	1	1
Coteseville, Pa.....	1	.....	Lynn, Mass.....	1	.....
Columbia, S. C.....	3	.....	Manchester, N. H.....	.....	1
Columbus, Ohio.....	4	.....	Marquette, Mich.....	1	.....
Concord, N. H.....	.....	1	Meriden, Conn.....	2	.....
Corpus Christi, Tex.....	2	.....	Middletown, N. Y.....	1	.....
Cumberland, Md.....	2	.....	Milwaukee, Wis.....	1	.....
Dallas, Tex.....	3	.....	Minneapolis, Minn.....	4	.....
Danville, Va.....	.....	1	Mobile, Ala.....	2	.....
Denver, Colo.....	4	.....	Monessen, Pa.....	1	.....
Detroit, Mich.....	18	1	Nashville, Tenn.....	2	.....
Duluth, Minn.....	4	.....	Newark, N. J.....	8	.....
Durham, N. C.....	3	.....	New Haven, Conn.....	3	.....
Elizabeth, N. J.....	1	1	New Orleans, La.....	2	1
Erie, Pa.....	1	.....	Newton, Mass.....	2	.....
Eureka, Calif.....	.....	1	New York, N. Y.....	40	1
Everett, Mass.....	3	.....	Norfolk, Va.....	2	.....

## TYPHOID FEVER—Continued.

## City Reports for Week Ended Oct. 11, 1919—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
North Braddock, Pa.	1		Savannah, Ga.	1	
North Tonawanda, N. Y.	1		Schenectady, N. Y.	1	
Norwood, Ohio.	1		Seattle, Wash.	1	
Oakland, Calif.	5		Sioux Falls, S. Dak.		1
Oklahoma City, Okla.	1		South Bend, Ind.		1
Omaha, Nebr.	5		Southbridge, Mass.	3	
Paterson, N. J.	2		Spokane, Wash.	1	
Pekin, Ill.	1		Springfield, Mass.	1	
Perth Amboy, N. J.	1		Springfield, Ohio.	1	
Philadelphia, Pa.	23	1	Superior, Wis.	1	
Piqua, Ohio.	1		Syracuse, N. Y.		1
Pittsburgh, Pa.	3		Tacoma, Wash.	1	
Plainfield, N. J.	1		Taunton, Mass.	1	
Portland, Me.	1		Toledo, Ohio.	3	
Portland, Oreg.		1	Trenton, N. J.	1	
Providence, R. I.	1		Troy, N. Y.	1	
Pueblo, Colo.	1		Washington, D. C.	1	
Reading, Pa.	5		Washington, Pa.	2	
Reno, Nev.	1		West Chester, Pa.	1	
Richmond, Va.	4		Wheeling, W. Va.	2	
Riverside, Calif.	1		White Plains, N. Y.	2	
Roanoke, Va.	1		Wichita, Kans.		1
Rochester, N. Y.	1		Wilkes-Barre, Pa.	1	
Rock Island, Ill.	1		Wilmington, Del.	1	
Rome, Ga.	1		Wilmington, N. C.	2	
Sacramento, Calif.	2		Winston-Salem, N. C.	2	
Saginaw, Mich.	3		Worcester, Mass.	4	
St. Joseph, Mo.	4		Yakima, Wash.	2	
St. Louis, Mo.	9		Yonkers, N. Y.		1
Salt Lake City, Utah.	2		York, Pa.	1	
Sandusky, Ohio.	5		Youngstown, Ohio.	2	
San Francisco, Calif.	3				

## TYPHUS FEVER.

## San Francisco, Calif., Week Ended Oct. 11, 1919.

During the week ended October 11, 1919, one case of typhus fever was reported at San Francisco, Calif.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

## City Reports for Week Ended Oct. 11, 1919.

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Adams, Mass.	14,406	3								
Akron, Ohio.	93,604	31	4		2		2		5	
Alameda, Calif.	28,433	7	2							
Albany, N. Y.	106,632		2		1				2	
Alexandria, La.	16,232	6								
Allentown, Pa.	65,109		4		1		1			
Alliance, Ohio.	19,581		1				2			
Alton, Ill.	23,783	6								2
Altoona, Pa.	59,712		6		45					
Anderson, Ind.	24,230	6								1
Ann Arbor, Mich.	15,041	8	1	1						
Anniston, Ala.	14,326		1				2			
Ansonia, Conn.	16,954	3					1		1	
Appleton, Wis.	18,005	3								
Arlington, Mass.	13,073	1					3			
Asbury Park, N. J.	14,629	1	1	1						
Ashtabula, Ohio.	22,008	5	1		3					
Atlanta, Ga.	100,144	48	17				3		1	3

# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Oct. 11, 1919—Continued.

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Atlantic City, N. J.	59,515	11							3	1
Attleboro, Mass.	19,776	5	2		3					
Autburn, N. Y.	37,823	10			1					
Austin, Tex.	35,612	0	10							
Bakersfield, Calif.	17,543	6					1			
Baltimore, Md.	594,637	170	45	5	7		9		40	13
Battle Creek, Mich.	30,159	0	4				4			
Bayonne, N. J.	72,204		8				1		8	
Beatrice, Nebr.	10,437	4								
Beaumont, Tex.	28,851	11								
Bedord, Ind.	10,613	2	1				1			
Belleville, N. J.	12,797						3			
Bellingham, Wash.	34,362						1		1	
Beloit, Wis.	18,547	6								2
Berkeley, Calif.	60,427	5			4		2			
Berlin, N. H.	13,892	8	1							1
Bethlehem, Pa.	14,353		3		1		1			
Beverly, Mass.	22,128	2	2							
Biddeford, Me.	17,760	2								
Binghamton, N. Y.	54,864	16	2				2			
Birmingham, Ala.	189,716	40	8	2	4		9		5	6
Bloomfield, N. J.	19,013	1							2	1
Bloomington, Ind.	11,661	4								
Bluefield, W. Va.	16,123		5				3			
Boise, Idaho.	35,951	12								
Boston, Mass.	767,813	171	54	3	55		26	1	42	12
Braddock, Pa.	22,060		1		4		2		1	
Brazil, Ind.	10,472	0								
Bridgeport, Conn.	124,724	26	29		14		4			
Bristol, Conn.	16,318	2	4		1					1
Brookline, Mass.	33,526	8	1				1		1	
Brunswick, Ga.	10,984	1								
Burlington, Iowa.	25,144	9					1			
Burlington, Vt.	21,802	5								
Butler, Pa.	28,677		5				4			
Butte, Mont.	44,057						4			
Cadillac, Mich.	10,158	0	3							
Cairo, Ill.	15,995	3	5							
Cambridge, Mass.	114,293	20	5				5		3	5
Camden, N. J.	108,117	18	18				4		3	
Canton, Ohio.	62,566	7	6				2		1	1
Cape Girardeau, Mo.	11,146	2	2							
Carnegie, Pa.	11,963		2							
Cedar Rapids, Iowa.	38,033		4							
Chanute, Kans.	12,968	1					1			
Charleston, S. C.	61,041	20	1							1
Charleston, W. Va.	31,060	14	4		2					1
Charlotte, N. C.	40,759	16	7		1					1
Chattanooga, Tenn.	61,575	17	1				2			1
Chelsea, Mass.	48,405	11	1		1				3	1
Chester, Pa.	41,857		5							
Cheyenne, Wyo.	111,320	1	1				3			
Chicago, Ill.	2,547,201	530	182	13	54	2	117	3	363	47
Chicopee, Mass.	29,950	3							1	1
Chillicothe, Ohio.	15,625	0								
Cincinnati, Ohio.	414,248		22		3		12	1	26	8
Cleveland, Ohio.	692,259	164	79	7	12		19		33	14
Clinton, Iowa.	27,678	0	2				1			
Clinton, Mass.	13,075	3							1	
Coffeyville, Kans.	18,331		2						1	
Cohoes, N. Y.	25,292	5								
Colorado Springs, Colo.	38,965	9							7	5
Columbia, S. C.	35,165		6							
Columbus, Ga.	26,306	13	1				1		1	1
Columbus, Ohio.	220,135	64	10				6	1	4	
Concord, N. H.	22,858	10	2							
Connellsville, Pa.	15,878						1			
Corpus Christi, Tex.	10,789		2							
Council Bluffs, Iowa.	31,838	10	4	1			6			
Covington, Ky.	59,623	14	1	1	1					
Cranston, R. I.	26,773	3					1			

<sup>1</sup> Population Apr. 15, 1910.



# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Oct. 11, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cumberland, Md.	26,686	4	1				10		2	
Dallas, Tex.	129,738	23	10		1		5		8	6
Danbury, Conn.	22,931	6					1			
Danvers, Mass.	10,037				8		1			
Danville, Ill.	32,969	3								
Danville, Va.	20,183		1						1	
Davenport, Iowa.	49,618		3				1			
Dayton, Ohio.	128,939	30	9				4		2	
Decatur, Ill.	41,483	6	2				1			
Dedham, Mass.	10,618	1								
Denver, Colo.	268,439	65	15		1		3		12	
Des Moines, Iowa.	104,052		8		1		4			
Detroit, Mich.	619,648	163	61	3	16	1	61		47	14
Dover, N. H.	13,276	3							1	
Dubuque, Iowa.	40,096		1							
Duluth, Minn.	97,077	17	12				3		3	
Dunmore, Pa.	21,286		1							
Durham, N. C.	26,160	3	3				3			
East Chicago, Ind.	30,286	5								
East Cleveland, Ohio.	13,864						1			
Easthampton, Mass.	10,656	1					2		1	
Easton, Pa.	30,854		3							
East Orange, N. J.	43,761	5	1				1		2	
East St. Louis, Ill.	77,312	7	1							
Eau Claire, Wis.	18,887		1		1		2			
Elgin, Ill.	28,332	8	1						1	
Elizabeth, N. J.	88,830		7		6		6		6	4
Elmira, N. Y.	38,272	11	3	1	2				6	
El Paso, Tex.	69,149	28								2
Elyria, Ohio.	19,303	5			40				1	1
Englewood, N. J.	12,603	5								
Erie, Pa.	76,592		31		1		4			
Eureka, Calif.	15,142	7								
Evanston, Ill.	29,304	6					1			
Everett, Mass.	40,160	9	4				3			
Everett, Wash.	37,205				2		1			
Farmont, W. Va.	16,111		9				5		5	
Fall River, Mass.	129,828	30	8		8	2			5	5
Fargo, N. Dak.	17,872	1					2			
Farrell, Pa.	110,190		1							
Findlay, Ohio.	14,858	2								
Flint, Mich.	57,386	10	14		5		13			
Fond du Lac, Wis.	21,486	7					2			
Fort Scott, Kans.	10,564	1								
Fort Wayne, Ind.	78,014	12								1
Fort Worth, Tex.	109,597	13	40				4			
Fostoria, Ohio.	10,959	5								
Fremont, Nebr.	10,080	1								
Fremont, Ohio.	11,034	1	1							
Galesburg, Ill.	24,629	5	1	1						
Galveston, Tex.	42,650	9								3
Gloucester City, N. J.	11,375								1	
Grand Rapids, Mich.	132,861	29	11				1		3	2
Great Falls, Mont.	13,948	7								
Green Bay, Wis.	30,017	8								
Greenfield, Mass.	12,251	5								
Greensboro, N. C.	20,171	3								
Greenwich, Conn.	19,594								3	
Hackensack, N. J.	17,412	9							2	
Hammond, Ind.	27,016	8	2	1						1
Hancock, Mich.	12,578	3								
Harrisburg, Pa.	73,276				1					
Harrison, N. J.	17,345		1							
Hartford, Conn.	112,851	27	8		1		9		4	2
Haverhill, Mass.	49,180	12					4		1	1
Hazleton, Pa.	28,981		2		45		2			
Highland Park, Mich.	33,859	11	5							
Hoboken, N. J.	78,324	9	3	1					3	1
Holland, Mich.	12,459	2	10							
Holyoke, Mass.	66,503	18					4		1	2
Hudson, N. Y.	12,898	1								

<sup>1</sup> Population Apr. 15, 1910.

# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Oct. 11, 1919—Continued.

City.	Popu- lation as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Independence, Mo.	11,964	4			1				1	1
Indianapolis, Ind.	283,622	65	7				6		2	9
Ironton, Ohio.	14,079	4					1		1	
Ironwood, Mich.	15,095	1	2				1			
Irrington, N. J.	16,710								4	
Ithaca, N. Y.	16,017	6					2			
Jamestown, N. Y.	37,431	9	13				2		4	1
Janesville, Wis.	14,411	3					5			
Jersey City, N. J.	312,557		23		1		1		15	
Johnstown, N. Y.	10,678	5								
Johnstown, Pa.	70,473		4		28		2			
Joplin, Mo.	33,400	3	1				2		1	
Kalamazoo, Mich.	50,408	22	1				11		2	
Kankakee, Ill.	14,270	5					3			1
Kansas City, Kans.	102,096		9				3		1	
Kansas City, Mo.	305,816	81	12	1	12		4		3	5
Kearny, N. J.	24,325	5	1		1				2	
Kenosha, Wis.	32,833	9					3			
Knoxville, Tenn.	59,112		4	2			9		3	3
Kokomo, Ind.	21,929	4					2			
La Crosse, Wis.	31,833	7	2				1			
La Fayette, Ind.	21,481	3					1			
Lancaster, Ohio.	16,086						4			
Lancaster, Pa.	51,437		2		1		3		2	
Laurel, Miss.	12,313		1							
Lawrence, Kans.	13,477	4								
Lawrence, Mass.	102,923	23	1		1		7		5	3
Leavenworth, Kans.	19,363	2							1	1
Leominster, Mass.	21,365	6					5		1	
Lexington, Ky.	41,997	20	4				2			2
Lima, Ohio.	37,145	6	5		1		6			
Lincoln, Nebr.	46,957		1		1		2			
Lincoln, R. I.	10,473						1			
Logansport, Ind.	21,338	5					4			
Long Beach, Calif.	29,163				1					
Long Branch, N. J.	15,733	3					1		1	
Lorain, Ohio.	38,206	0	1				2		1	
Los Angeles, Calif.	535,485	208	12				5		29	20
Louisville, Ky.	240,808	32	37	1			4		6	5
Lowell, Mass.	114,366	32	6				14		4	3
Ludington, Mich.	10,566	4								
Lynchburg, Va.	33,497	4	1				5		1	
Lynn, Mass.	104,534	20	13				12		1	
Macon, Ga.	46,099	12	19	2	1					
Madison, Wis.	31,315	8								1
Mahanoy City, Pa.	17,709		2				1			
Malden, Mass.	52,243	6	3				1		2	
Manchester, Conn.	15,859	1					4			
Manchester, N. H.	79,607	25	5	2			7		13	
Manitowoc, Wis.	18,931	4			10		6	1	1	1
Mankato, Minn.	10,365	0								
Marinette, Wis.	14,610		1							
Marion, Ind.	19,923	10	2							
Marlboro, Mass.	15,285	6	1				1		1	3
Marquette, Mich.	12,555	2	1				1			
Martinsburg, W. Va.	12,984		4				1			
Martins Ferry, Ohio.	10,135		1							
Mason City, Iowa.	14,938	6	1	1						
Medford, Mass.	26,681	9	2				2		1	1
Melrose, Mass.	17,724	3								1
Meriden, Conn.	29,431		3				2		1	
Methuen, Mass.	14,320	1								
Middletown, N. Y.	15,890		1				3		1	
Middletown, Ohio.	16,384	1					1			
Milwaukee, Wis.	445,008	95	44	2	4		12		22	11
Minneapolis, Minn.	373,448	69	22	1			13	1	20	8
Mobile, Ala.	59,201	17	11	2			2			1
Monessen, Pa.	23,070		18				1		3	
Montclair, N. J.	27,087	0								
Montgomery, Ala.	44,039	17	5				7			
Morgantown, W. Va.	14,444	2	2				3		1	

<sup>1</sup> Population Apr. 15, 1910.



# DIPHThERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Oct. 11, 1919—Continued.

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Morristown, N. J.	13,410	5	1							
Moundsville, W. Va.	11,513	0								
Mount Carmel, Pa.	20,709		3				1		8	
Mount Vernon, N. Y.	37,991	7	11		1		1		1	
Muskogee, Okla.	47,173		4							
Nashua, N. H.	27,541	7							8	
Nashville, Tenn.	118,136		7				8		3	3
Newark, N. J.	418,789	87	24		9		11		35	9
New Bedford, Mass.	121,622	37	1		18		2		9	4
New Britain, Conn.	55,285	20	4	2			4		1	1
New Brunswick, N. J.	25,855		1						1	
Newburgh, N. Y.	29,893	4	1		2					1
Newburyport, Mass.	15,291	6							1	1
New Castle, Pa.	41,915		1				12		1	
New Haven, Conn.	152,275	34	12		9		4		3	2
New London, Conn.	21,199	4	3				1			1
New Orleans, La.	377,010	97	4		1		6		9	12
Newport, R. I.	30,585	4					2			
Newton, Mass.	44,345	13	2	1	1		6		1	1
New York, N. Y.	5,737,492	1,001	198	16	52	1	48		368	106
Niagara Falls, N. Y.	38,466	11	3	1	2				2	
Norfolk, Va.	91,148		9				6		1	3
North Adams, Mass.	122,019	4	1						1	
Northampton, Mass.	20,006	8	1		1					
North Attleboro, Mass.	11,248	1								
North Braddock, Pa.	15,684						3			
North Little Rock, Ark.	15,515	0	4						1	
North Tonawanda, N. Y.	14,060	3					2			
Norwalk, Conn.	27,332								2	
Norwich, Conn.	21,923		6							
Norwood, Ohio	23,269	3			14		2			
Oakland, Calif.	206,405	55	1		9		8			1
Oak Park, Ill.	27,816	10	1				1	1	1	1
Ogden, Utah.	32,343	5	2		1					
Oklahoma City, Okla.	97,588	16	8		1		5		1	1
Old Forge, Pa.	15,479		1				1			
Olean, N. Y.	16,927	6								
Omaha, Nebr.	177,777	36	4	2	1		10			3
Orange, N. J.	35,636	12	1				5		1	2
Oshkosh, Wis.	36,549	8								
Parkersburg, W. Va.	21,059	2	5							
Parsons, Kans.	15,952						1		2	
Pasadena, Calif.	49,620	9							3	
Passaic, N. J.	74,478	17	2	1					3	2
Pateron, N. J.	140,512	3	10				1		9	
Peekskill, N. Y.	19,034	4								
Peoria, Ill.	72,184	15	7				9		4	1
Perth Amboy, N. J.	42,646	9	7						1	
Petersburg, Va.	25,817	6	7						2	
Philadelphia, Pa.	1,735,514		93	4	24		54		61	52
Phillipsburg, N. J.	15,879	2							1	1
Pine Bluff, Ark.	17,777		1						1	
Piqua, Ohio.	14,275	5								1
Pittsburgh, Pa.	586,196		59		6		14		13	
Pittsfield, Mass.	39,678	15							2	1
Plainfield, N. J.	24,330	6			28		1		1	
Plymouth, Mass.	14,001	3								
Plymouth, Pa.	19,439		1						1	
Pomona, Calif.	13,624	5								
Pontiac, Mich.	18,006	14	6		12				2	
Portland, Me.	64,720	10			1		6			1
Portland, Oreg.	308,399	54	9		2		18		2	4
Portsmouth, N. H.	11,730	2							1	
Pottstown, Pa.	16,987		2						1	
Pottsville, Pa.	22,717		2				1		1	
Poughkeepsie, N. Y.	30,786	8	2							
Providence, R. I.	259,895	54	23	3			1			2
Pueblo, Colo.	56,084		1				1			
Quincy, Mass.	39,022	8	3				4		1	
Racine, Wis.	47,465	7					7		2	
Rahway, N. J.	10,361	3								

1 Population Apr. 15, 1910.

# DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Oct. 11, 1919—Continued.

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Raleigh, N. C.	20,274	13	3				3			1
Reading, Pa.	111,607		12		1		3		4	
Redlands, Calif.	14,573	1								
Reno, Nev.	15,514	4								
Richmond, Va.	158,702	39	12	2			7		8	4
Riverside, Calif.	20,496	4	1							
Roanoke, Va.	48,282	11	4				3			
Rochester, N. Y.	264,714	60	17		24		11	1	10	1
Rockford, Ill.	56,739	6	3							
Rock Island, Ill.	29,452	7								1
Rocky Mount, N. C.	12,673	7							1	
Rome, Ga.	15,607						1		1	
Rome, N. Y.	24,259		1							
Sacramento, Calif.	68,984	19					2		2	1
Saginaw, Mich.	56,469	12	1		1		1			
Saint Joseph, Mo.	86,498	31	5	3					1	2
Saint Louis, Mo.	768,630	143	101	8	12		7	2	41	10
Saint Paul, Minn.	252,465	37	25		1		4		12	5
Salem, Mass.	49,346	19	9	1			4			1
Salem, Oreg.	21,274	5								
Salt Lake City, Utah	121,623	22	2				1			
San Angelo, Tex.	10,321	1								
San Bernardino, Calif.	17,616	7								
San Diego, Calif.	56,412	15	1							1
Sandusky, Ohio.	20,226	4					1			
Sanford, Me.	11,217	3								
San Francisco, Calif.	471,023	106	5		65		5		36	13
San Jose, Calif.	39,810						2		2	
Santa Barbara, Calif.	15,360									2
Santa Cruz, Calif.	15,150	5								
Saratoga Springs, N. Y.	13,830	1							1	
Saugus, Mass.	10,210	2	1							
Savannah, Ga.	69,250	29	10				1			
Schenectady, N. Y.	103,774	14	1				3		2	9
Seranton, Pa.	149,541		6				2		6	
Seattle, Wash.	366,445		13		5		1			
Shamokin, Pa.	21,274		1		10		13			
Sharon, Pa.	19,156		4				1			
Shenandoah, Pa.	29,753		2				2			
Sioux City, Iowa.	58,568		2				3			
Sioux Falls, S. Dak.	16,887	7	1				1			1
Somerville, Mass.	88,618	17					4		3	
South Bend, Ind.	70,967	12	1							1
Southbridge, Mass.	14,165	4					1		1	
Spartanburg, S. C.	21,983	6	3							
Spokane, Wash.	157,656		5		1		10			
Springfield, Ill.	62,623	16	4	1			5			
Springfield, Mass.	108,668	26	3	1			1		2	3
Springfield, Mo.	41,169	13						1		
Springfield, Ohio.	52,296	9					1			3
Stamford, Conn.	31,810		5		4		1		1	
Steubenville, Ohio.	28,259	5	1				2			
Stockton, Calif.	36,209	10					2			1
Superior, Wis.	47,167	7	1				1			
Syracuse, N. Y.	158,559	28	5				14		4	3
Tacoma, Wash.	117,446		11		1		1		4	
Taunton, Mass.	36,610						1		3	
Terre Haute, Ind.	67,361	15								
Toledo, Ohio.	202,010	48	10		8		17		6	3
Trenton, N. J.	113,974	32	5		2		2		6	
Troy, N. Y.	78,094	19							2	2
Tuscaloosa, Ala.	10,824	4	1							
Vallejo, Calif.	13,803	1	9				1		2	
Vancouver, Wash.	13,805									
Waco, Tex.	34,015	7	3				1			
Walla Walla, Wash.	26,067									
Waltham, Mass.	31,011	3	5				2			
Warren, Pa.	15,083		4							
Washington, D. C.	369,282		19	1	2		9		22	13
Washington, Pa.	22,076		4				1			
Watertown, Mass.	15,188	1							2	

<sup>1</sup> Population Apr. 15, 1910.

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—**  
Continued.

**City Reports for Week Ended Oct. 11, 1919—Continued.**

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Wausau, Wis.	19,666	1								
West Chester, Pa.	13,403		4				4			
Westfield, Mass.	18,769	2	1				1		1	
West Hoboken, N. J.	44,386	3	13				1		2	
West New York, N. J.	19,613	1	1						1	
West Orange, N. J.	13,964	2	1						1	
Wheeling, W. Va.	43,657	10	1		1		1			
White Plains, N. Y.	23,331	6	2		1					
Wichita, Kans.	73,597	27	3						8	1
Wilkes-Barre, Pa.	78,334		5				3		6	
Wilkesburg, Pa.	23,899		4				3			
Wilmington, Del.	95,369	27	5		1		2			3
Wilmington, N. C.	30,400	11					2			
Winchester, Mass.	10,812	3					1		1	
Winona, Minn.	<sup>1</sup> 18,583	6					2		2	2
Winston-Salem, N. C.	33,136	13	2		1		1		4	2
Winthrop, Mass.	13,105	0								
Woburn, Mass.	16,076	4								
Worcester, Mass.	166,106	35	9				5		2	2
Yonkers, N. Y.	103,066	11	4		1		3			1
York, Pa.	52,770		7		12		7		2	
Youngstown, Ohio.	112,282	21	3		1		9			4
Zanesville, Ohio.	31,320	9								1

<sup>1</sup> Population April 15, 1910.

## FOREIGN.

### CANADA.

#### Communicable Diseases—Province of Ontario—August and September, 1919.

The following table shows the number of reported cases of communicable diseases in the Province of Ontario, Canada, during the months of August and September, 1919, as compared with the same months of 1918. The number of deaths from these diseases is also shown:

Diseases.	Aug., 1919.		Aug., 1918.		Sept., 1919.		Sept., 1918.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cerebrospinal meningitis.....	8	8	1	.....	6	5	6	4
Chancroid.....	5	.....	9	.....	.....	.....	.....	.....
Diphtheria.....	190	27	164	1	291	36	351	52
Gonorrhea.....	169	.....	280	.....	.....	.....	.....	.....
Influenza.....	8	.....	.....	.....	10	.....	.....	.....
Measles.....	64	.....	347	11	51	1	188	4
Pneumonia.....	.....	30	.....	.....	.....	.....	.....	.....
Pneumonia (acute primary).....	.....	28	.....	.....	79	.....	.....	.....
Poliomyelitis.....	3	.....	5	2	9	0	2	0
Relapsing fever and dysentery.....	.....	1	.....	.....	.....	.....	.....	.....
Scarlet fever.....	120	2	101	.....	187	4	187	3
Smallpox.....	30	.....	21	.....	48	1	26	0
Syphilis.....	104	.....	108	.....	.....	.....	.....	.....
Tuberculosis.....	176	100	206	116	105	93	259	181
Typhoid fever.....	69	16	240	27	101	31	111	31
Whooping cough.....	112	14	246	12	141	9	72	31

### CUBA.

#### Smallpox—Habana—August-October, 1919.

From August 2 to October 23, 31 cases of smallpox were reported in Habana, Cuba. The epidemic was said to have been traced to a working girl who came from Spain. The authorities are taking active measures to eradicate the disease.

### SPAIN.

#### Meningitis—Madrid.

During the month of August, 1919, 70 deaths from meningitis were reported at Madrid, Spain.

### SYRIA.

#### Plague—Beirut.

A report dated October 11, 1919, states that 24 cases of bubonic plague had occurred at Beirut, Syria.

## UNION OF SOUTH AFRICA.

## Influenza—Port Elizabeth and New London.

During the three weeks ended August 30, 1919, 20 cases of influenza were reported at Port Elizabeth, South Africa.

During the two weeks ended September 6, 1919, 106 cases of influenza, with 5 deaths, were reported at New London, South Africa.

## VIRGIN ISLANDS.

## Contagious Diseases—September, 1919.

The occurrence of contagious diseases in the Virgin Islands during the month of September, 1919, has been reported as follows:

	Cases.	Remarks.
In the islands of St. Thomas and St. John:		
Chaneroid.....	7	2 imported.
Gonococcus infection, genito-urinary.....	5	3 imported.
Gonococcus infection, conjunctival.....	1	
Syphilis.....	8	3 imported.
Tuberculosis, pulmonary.....	1	
Uncinariasis.....	2	Transients.
In the island of St. Croix:		
Amebic dysentery.....	3	
Chaneroid.....	4	
Filariasis.....	22	
Gonococcus infection, genito-urinary.....	9	
Pellagra.....	1	
Syphilis.....	1	
Trachoma.....	4	
Tuberculosis, pulmonary.....	2	

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During Week Ended Oct. 31, 1919.<sup>1</sup>

## CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Antung.....	Sept. 7-14.....	84	31	Present.
Hankow.....	Aug. 31-Sept. 6.....	1		
Hongkong.....	Aug. 21-Sept. 6.....	7	5	
Mukden.....	Sept. 6-13.....			
Shanghai.....	Aug. 10-16.....	3		
Swatow.....	Aug. 10-30.....		5	
Tsingtau.....	Sept. 1-7.....	32	18	
Chosen (Korea):				
Seoul.....	Aug. 1-31.....		5	
Indo-China:				
Saigon.....	Aug. 11-24.....	8	7	
Java:				
Batavia.....	Aug. 8-14.....	2		
Surabaya.....	July 30-Aug. 5.....	1	1	
Do.....	Aug. 13-19.....	1	1	
Philippine Islands:				
Manila.....	Aug. 10-16.....	74	44	
Siam:				
Bangkok.....	Aug. 10-23.....		13	
Sumatra:				
Medan.....	Aug. 3-9.....	12	6	

<sup>1</sup> From reports from medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

## **Reports Received During Week Ended Oct. 31, 1919—Continued.**

### **PLAGUE.**

Place.	Date.	Cases.	Deaths.	Remarks.
British East Africa:				
Nairobi.....	Aug. 17-23.....	5	2	
China:				
Hongkong.....	Aug. 31-Sept. 6...	1		
Egypt:				
Port Said.....	July 2-Aug. 5....	15	13	
India:				
Karachi.....	Aug. 31-Sept. 6....	3	1	
Rangoon.....	Aug. 24-30.....	17	16	
Indo-China:				
Saigon.....	Aug. 11-24.....	4	1	
Java:				
Salatiga.....	Aug. 20-26.....	1	1	
Surabaya.....	July 30-Aug. 12....	4	3	
Do.....	Aug. 20-26.....	3	3	
Temanggoeng.....	July 30-Aug. 20....	34	34	

### **SMALLPOX.**

Brazil:				
Rio de Janeiro.....	Aug. 10-Sept. 6....	177	43	
Canada:				
Newfoundland—				
St. Johns.....				Outports: Port Rexton, T. B., 2 cases.
Nova Scotia—				
Halifax.....	Oct. 5-11.....			Present.
Quebec—				
Quebec.....	Sept. 28-Oct. 11....	2		
China:				
Hankow.....	Aug. 31-Sept. 6....	3		
Hongkong.....	do.....			Present.
Mukden.....	Sept. 7-13.....			Do.
Chosen (Korea):				
Seoul.....	Aug. 1-31.....	1		
Egypt:				
Alexandria.....	Aug. 10-16.....	7	6	
Do.....	Aug. 27-Sept. 2....	11	6	
Cairo.....	July 2-Aug. 5....	191	79	
Port Said.....	July 9-15.....	1		
France:				
Paris.....	Aug. 31-Sept. 6....	6	2	
Do.....	Sept. 14-20.....	1	1	
India:				
Rangoon.....	Aug. 24-30.....	8		
Indo-China:				
Saigon.....	Aug. 11-24.....	2		
Java:				
Batavia.....	Aug. 8-14.....	62	12	
Surabaya.....	July 20-Aug. 5....	2		
Do.....	Aug. 13-23.....	2		
Mexico:				
Salina Cruz.....	Sept. 17-30.....	1		
Vera Cruz.....	Sept. 28-Oct. 4....	2		
Portugal:				
Lisbon.....	Sept. 11-20.....	7		
Oporto.....	Aug. 31-Sept. 13....	11		
Spain:				
Bilbao.....	Aug. 1-10.....	1		
Do.....	Aug. 21-31.....	3		
Madrid.....	Aug. 1-31.....	2		
Valencia.....	Sept. 7-13.....	8		
Do.....	Sept. 21-27.....	2	1	
Vigo.....	Sept. 28-Oct. 4....	1		

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received During Week Ended Oct. 31, 1919—Continued.****TYPHUS FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Rio de Janeiro.....	Aug. 31-Sept. 6....	4	.....	
Egypt:				
Alexandria.....	Aug. 27-Sept. 2....	8	3	
Do.....	Sept. 10-16.....	14	1	
Cairo.....	July 2-Aug. 5.....	966	474	
Port Said.....	July 16-29.....	6	1	
Japan:				
Nagasaki.....	Sept. 8-14.....	1	1	
Java:				
Batavia.....	Aug. 8-14.....	12	2	
Paseroean.....	Aug. 6-12.....	2	.....	
Do.....	Aug. 20-26.....	1	1	
Surabaya.....	July 30-Aug. 19....	5	1	
Portugal:				
Oporto.....	Aug. 31-Sept. 13....	2	.....	
Spain:				
Madrid.....	Aug. 1-31.....	1	.....	
Sumatra:				
Medan.....	Aug. 3-9.....	31	4	
Tunis:				
Tunis.....	Sept. 21-27.....	.....	1	

**YELLOW FEVER.**

Nicaragua:				
León.....	Sept. 5.....	.....	.....	Present.
Corinto.....	do.....	.....	.....	Do.

**Reports Received from June 28 to Oct. 24, 1919.****CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo.....	Apr. 20-26.....	10	.....	
Hambantota.....	July 25.....	.....	.....	Outbreak 148 miles from Colombo. Spread to other places.
China:				
Amoy.....	June 17-30.....	.....	25	
Do.....	July 1-Aug. 25.....	.....	514	
Antung.....	Aug. 5-Sept. 7.....	900	329	
Canton.....	June 8-21.....	10	3	
Do.....	June 20-Aug. 16....	19	11	Present in foreign section, island Shamien, Aug. 8.
Chefoo.....	Aug. 31-Sept. 6.....	.....	.....	Daily average over 50 fatalities.
Foochow.....	July 10-26.....	.....	.....	To July 16: Average of 100 fatalities daily. To July 26: Average of 30 cases daily. Five fatal cases European. July 27-Aug. 9: Epidemic.
Hongkong.....	July 13-Aug. 23....	12	12	Foreign.
Peking.....	Aug. 24-30.....	.....	1	Choleraic disease prevalent from about July 15 with high mortality.
Shanghai.....	Aug. 6-31.....	4	1	Cases are from reports of physicians from the foreign concessions and native city. Deaths are for the British concession.
Swatow.....	May 25-June 28.....	.....	90	Present: 30 miles from Swatow.
Do.....	June 29-Aug. 9.....	.....	115	Aug. 26: 6 cases.
Tientsin.....	Aug. 10-Sept. 6....	232	4	Keiki Province.
Tsingtao.....	July 6-Aug. 31....	59	35	In a Korean arrived from Antung, China, where cholera was prevalent.
Ungkung.....	Aug. 16.....	.....	.....	North Helan Province.
Chosen (Korea).....	Aug. 15.....	3	.....	Present.
Anyo.....	do.....	1	.....	
New Wiju.....	Aug. 12.....	1	.....	
Seoul.....	Aug. 15.....	1	.....	
Shingshi.....	do.....	1	.....	
South Kankyo.....	Aug. 26.....	.....	.....	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 28 to Oct. 24, 1919—Continued.**

## **CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India:</b>				
Bombay.....	Apr. 28-June 28....	84	55	
Do.....	June 29-Aug. 9....	157	91	
Calcutta.....	May 4-June 21....		617	
Do.....	June 29-Aug. 9....		100	
Karachi.....	July 24-30.....	3	2	
Madras.....	May 18-June 28....	29	19	Jan. 19-25, 1919: Cases, 113;
Do.....	July 12-Aug. 16....	33	18	deaths, 75.
Do.....	Aug. 18-Sept. 6....	17	11	
Rangoon.....	Apr. 28-June 28....	108	85	
Do.....	June 29-Aug. 16....	72	70	
<b>Indo-China:</b>				
Cochin-China—				
Saigon.....	Apr. 21-June 29....	386	272	City and district.
Do.....	July 28-Aug. 10....	25	23	
<b>Japan:</b>				
Pascadores Islands.....	July 14.....	49		In one village.
Taiwan Island.....				July 2-Aug. 12, 1919: Cases, 398;
Keelung.....	Aug. 8.....			deaths, 245.
Taihoku.....	do.....			Present in vicinity.
Tokyo.....	Aug. 18-24.....	4		Present.
<b>Java:</b>				
East Java.....				Apr. 2-June 20, 1919: Cases, 613;
Surabaya.....	Apr. 23-June 20....	97	79	deaths, 607. June 25-July 15,
Do.....	June 25-July 15....	15	13	1919: Cases, 16; deaths, 18.
Mid-Java.....				Mar. 28-May 30, 1919: Cases, 1,014;
Samarang.....	Mar. 28-May 30....	89	84	deaths, 1,528.
West Java.....				May 2-June 26, 1919: Cases, 100;
Batavia.....	May 2-June 5.....	12	5	deaths, 67. July 18-Aug. 2,
Do.....	Aug. 2-8.....	1		1919: Cases, 10; deaths, 5.
<b>Manchuria:</b>				
Darien.....	Aug. 12.....			Present.
Harbia.....	Aug. 7.....			Present and in surrounding
				country. Aug. 14: Epidemic,
				with an estimated number of
				from 150 to 200 deaths.
<b>Mesopotamia:</b>				
Bassorah.....	July 20-26.....	1		
<b>Persia:</b>				
Ardebil.....	May 2.....			Present.
Enzeli.....	Apr. 23.....	1		
Khorram-Ahab.....	May 3.....			Outbreak.
Mianedge.....	Apr. 28.....			Do.
Zindjan.....	Apr. 21-May 4....		49	
<b>Philippine Islands:</b>				
Manila.....	Apr. 26-June 28....	11	5	
Do.....	June 29-Aug. 2....	261	133	
Do.....	Aug. 17-Sept. 6....	185	77	
Provinces.....	.....			May 4-24, 1919: Cases, 567; deaths,
Batangas.....	May 4-24.....	25	23	383.
Bulacan.....	do.....	48	25	
Cebu.....	do.....	162	84	
Laguna.....	do.....	20	15	
Mindoro.....	do.....	19	14	
Misamis.....	do.....	9	2	
Pampanag.....	do.....	166	131	
Tayabas.....	do.....	113	89	
Provinces.....				June 1-28, 1919: Cases, 615; deaths,
Batangas.....	June 1-28.....	79	61	435.
Bohol.....	June 15-28.....	11	8	
Bulacan.....	June 1-28.....	63	27	
Cavite.....	June 8-28.....	23	14	
Cebu.....	June 22-28.....	24	11	
Laguna.....	June 8-21.....	16	13	
Hocos Sur.....	June 15-21.....	1		
Nueva Ecija.....	June 1-28.....	60	39	
Pampanga.....	do.....	105	79	
Pangasinan.....	June 8-28.....	113	81	
Taayabas.....	do.....	108	81	
Union.....	June 22-28.....	7	7	
Provinces.....				June 29-Sept. 6, 1919: Cases,
Albay.....	Aug. 31-Sept. 6....	1	1	13,043; deaths, 9,331.
Amos Camarines.....	July 27-Aug. 23....	145	90	
Bataan.....	July 6-Aug. 9.....	8	7	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 28 to Oct. 24, 1919—Continued.**

## **CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Philippine Islands—Continued.</b>				
<b>Provinces—Continued.</b>				
Batangas.....	June 29-Sept. 6....	950	729	
Bohol.....	do.....	54	37	
Bulacan.....	do.....	485	357	
Capiz.....	Aug. 24-Sept. 6....	21	13	
Cavite.....	June 29-Aug. 16....	174	115	
Do.....	Aug. 24-Sept. 6....	86	55	
Cebu.....	June 29-July 26....	84	41	
Do.....	Aug. 17-Sept. 6....	691	424	
Ilocos Norte.....	Aug. 10-Sept. 6....	123	98	
Ilocos Sur.....	July 20-Aug. 9....	177	120	
Do.....	Aug. 17-30.....	211	146	
Iloilo.....	July 6-Sept. 6....	182	125	
Laguna.....	do.....	319	238	
Leyte.....	Aug. 24-30.....	41	18	
Mindoro.....	July 20-26.....	125	45	
Do.....	Aug. 24-30.....	79	45	
Misamis.....	July 20-26.....	6	4	
Do.....	Aug. 17-23.....	5	4	
Mountain.....	July 6-12.....	9	2	
Do.....	Aug. 31-Sept. 6....	4	-----	
Nueva Ecija.....	June 29-Sept. 6....	511	365	
Occidental Negros.....	Aug. 24-Sept. 6....	66	48	
Oriental Negros.....	July 27-Sept. 6....	173	103	
Pampanga.....	June 27-Sept. 6....	568	461	
Pangasinan.....	do.....	5,827	4,263	
Rizal.....	July 13-Aug. 23....	420	262	
Do.....	Aug. 31-Sept. 6....	184	115	
Sorsogon.....	July 27-Aug. 16....	23	21	
Tayabas.....	June 29-Sept. 6....	360	295	
Union.....	July 6-Sept. 6....	726	541	
Zambales.....	July 13-19.....	1	1	
Do.....	Aug. 31-Sept. 6....	27	115	
<b>Siam:</b>				
Bangkok.....	Apr. 12-June 28....	-----	697	
Do.....	June 30-Aug. 9....	-----	35	
<b>Straits Settlements:</b>				
Singapore.....	July 14-27.....	80	69	Sept. 30. Present.
<b>Sumatra:</b>				
Medan.....	June 29-July 13-26.	8	1	Present in neighboring villages, June-July, 1919.
<b>Turkey:</b>				
Constantinople.....	July 28.....	-----	-----	Present.
<b>On vessel:</b>				
Steamship.....	Aug. 17.....	1	-----	At Yokohama, from Shanghai, Aug. 12, 1919.

## **PLAGUE.**

<b>Azores:</b>				
Fayal Island.....	Sept. 6-19.....	-----	-----	Present.
Terceira Island.....	do.....	-----	-----	Do.
<b>Brazil:</b>				
Ceara.....	Sept. 8.....	-----	-----	Present.
Pernambuco.....	May 26-June 1....	-----	1	
<b>British East Africa:</b>				
Kisumu.....	May 18-June 28....	-----	-----	Present. Zanzibar Island.
Do.....	June 29-July 26....	-----	-----	Do.
Do.....	Aug. 3-6.....	-----	-----	Present in vicinity. Zanzibar Island.
Nairobi.....	June 15-21.....	1	-----	
<b>Ceylon:</b>				
Colombo.....	Aug. 10-16.....	2	2	Town cases.
<b>Chile:</b>				
Antofagasta.....	Aug. 18-23.....	3	-----	
<b>China:</b>				
Amoy.....	June 17-23.....	-----	1	
Do.....	Aug. 18-25.....	-----	1	
Canton.....	May 25-June 28....	-----	-----	Present. Apr. 27-May 10, 1919.
Foochow.....	May 18-24.....	-----	-----	Present. Cases, 3; present May 24-June 7, 1919.
Hongkong.....	June 15-28.....	42	33	
Do.....	June 29-Aug. 9....	35	31	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 28 to Oct. 24, 1919—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Ecuador:				
Guayaquil.....	June 16-30.....	2	1	Bathing place 65 kilometers from Guayaquil. Jan. 1-Aug. 6, 1919: Cases, 740; deaths, 405.
Posorja.....	June 1-30.....	3	1	
Egypt:				
Cities—				
Alexandria.....	July 23-29.....	1		Two European. Septicemic.
Do.....	Sept. 3-9.....	3	2	
Ismailia.....	July 29.....	2		
Cairo.....	May 1.....	1		
Kantarah.....	June 19-20.....	4	2	
Do.....	July 31-Aug. 3.....	2	3	
Port Said.....	May 1-June 28.....	9	10	
Do.....	July 4-Aug. 2.....	2	4	
Suez.....	June 5-11.....	3	3	
Provinces—				
Assiout.....	May 17-June 24.....	80	41	
Do.....	July 3-Aug. 6.....	7	3	
Beni-Souef.....	May 19-June 21.....	6	5	
Fayoum.....	May 18-July 5.....	10	7	
Girgeh.....	May 15-July 8.....	32	10	
Menoufia.....	June 8-24.....	5	1	
Minieh.....	May 24-June 25.....	29	11	
Do.....	July 5-7.....	3	1	
France:				
Marseille.....	Aug. 16-Sept. 2.....	5	3	Total number of cases reported to Aug. 27, 11; deaths, 3.
Great Britain:				
Liverpool.....	July 30.....	1	1	In dock laborer.
Hawaii:				
Ah Poi Camp.....	Aug. 9.....	1	1	Apr. 27-June 28, 1919: Cases, 8,645; deaths, 6,933. June 29-Aug. 9, 1919: Cases, 2,623; deaths, 1,974.
Paauihau.....	July 19.....	1		
Kukuiaui.....	Sept. 23.....	3	3	
Paauiho.....	Sept. 25.....	2	1	
India:				
Bombay.....	Apr. 28-June 28.....	278	202	Jan. 19-25, 1919: Cases 2; deaths, 1. Jan. 19-25, 1919: Cases, 586; deaths, 347. May 30-June 5; Cases, 37; deaths, 28.
Do.....	June 29-Aug. 9.....	37	23	
Calcutta.....	May 18-June 14.....		38	
Do.....	June 23-Aug. 2.....		22	
Karachi.....	May 18-June 28.....	145	132	
Do.....	June 29-Aug. 9.....	42	39	
Do.....	Aug. 28-30.....	16	13	
Madras.....				
Madras Presidency.....	July 6-Aug. 16.....	381	237	
Do.....	Aug. 31-Sept. 6.....	154	80	
Rangoon.....	Apr. 28-June 28.....	75	63	City and district.
Do.....	July 6-Aug. 16.....	158	144	
Indo-China:				
Cochin China—				
Saigon.....	Apr. 21-June 29.....	31	23	
Do.....	July 28-Aug. 10.....	4	3	
Japan:				
Yokohama.....	June 9-15.....	1	1	
Java:				
East Java.....				Apr. 8-June 28, 1919: Cases, 130; deaths, 130. July 23-29, 1919: Cases, 34; deaths, 34.
Surabaya.....	Apr. 23-June 3.....	7	7	
Mid-Java.....				Apr. 26-May 30, 1919: Cases, 23; deaths, 23.
Samarang.....	Apr. 26-May 20.....	10	10	
Mesopotamia:				
Bagdad.....	Apr. 19-June 20.....	346	269	Including suburb of Ashar. Total from date of outbreak, March, 1919, to June 24, 1919: Cases, 396; deaths, 256.
Do.....	July 19-25.....	2	1	
Do.....	Aug. 2-8.....	1		
Basra.....	May 3-10.....	108	89	
Bassorah.....	July 20-26.....	2	1	
Siam:				
Bangkok.....	Apr. 27-May 17.....	2	2	
Spain:				
Barcelona.....	Sept. 15.....	5		
Straits Settlements:				
Singapore.....	Apr. 13-26.....	2	1	
Do.....	July 14-27.....	11	7	
Syria:				
Beirut.....	Oct. 11.....			Present.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 28 to Oct. 24, 1919—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Turkey:				
Constantinople.....	Oct. 9.....			Bubonic and pneumonic.
On vessel:				
S. S. City of Sparta.....	Apr. 19-21.....	1	1	From Bombay, Apr. 3, 1919: Case, a soldier at sea.
Do.....	May 13-17.....	1	1	At Liverpool: Case, a native member of the crew. (Public Health Reports, June 27, 1919, p. 1463.)
S. S. Clan Lamont.....	Aug. 19.....	1		In dock in port of London, England. Vessel left Calcutta Mar. 23; arrived Buenos Aires May 9; sailed June 20; arrived Montevideo and sailed June 21; arrived St. Vincent, Cape Verde Islands, July 10.
S. S. Framlington Court....	July 25.....	1		From Alexandria, May 30; from Montreal, July 4; from Sydney, Nova Scotia, July 9; at Avonmouth, England, July 22, 1919.

## **SMALLPOX.**

Algeria:				
Algiers.....	June 1-30.....	1	1	
Do.....	July 1-Aug. 31.....	16	5	
Arabia:				
Aden.....	May 13-19.....		1	
Austria.....				Mar. 9-Apr. 5, 1919: Cases, 92.
Salzburg.....	Mar. 9-Apr. 5.....	50		
Vienna.....	do.....	17		
Azores:				
St. Michaels.....	June 7-20.....	1		
Brazil:				
Bahia.....	Apr. 20-June 7.....	4		
Pernambuco.....	May 4-25.....	5		Jan. 1-May 3, 1919: Cases, 10.
Rio de Janeiro.....	May 11-June 21.....	61	20	
Do.....	June 30-Aug. 9.....	148	46	
British East Africa:				
Kisumu.....	Mar. 2-8.....	1	1	Zanzibar Island.
Mombasa.....	Mar. 1-June 7.....	275	37	
Mtebba.....	Mar. 24-Apr. 6.....			Present. In Uganda.
Nairobi.....	Mar. 1-May 31.....	3		
Prison Island Quarantine Station.....		1	1	Zanzibar Island. In February, 1919. From vessel from India.
Canada:				
British Columbia—				
Vancouver.....	June 15-Sept. 11.....	8		
New Brunswick—				
Antigonish County.....	Sept. 28-Oct. 4.....			Present.
Campbellton.....	June 15-21.....	1		
Do.....	Aug.-Sept. 6.....	1		
Gloucester County.....				July 1-Sept. 30, 1919: Cases, 12.
Moncton.....	July 6-12.....	1		
St. John.....	July 27-Aug. 2.....	1		
Nova Scotia—				
Cities—				
Bridgenorth.....	July 27-Aug. 9.....			A few cases; mild.
Halifax.....	June 28-Sept. 20.....	65		June 15-28, 1919: Cases, 82
Sydney.....	June 8-21.....	3		
Do.....	Aug. 1-Sept. 6.....	4		
Counties—				
Antigonish.....	June 28-Sept. 6.....			Present.
Colchester.....	Aug. 3-8.....			Do.
Cumberland.....	Aug. 30-Sept. 6.....			Do.
Guysborough.....	Aug. 18-30.....			Do.
Do.....	Sept. 21-27.....			Do.
Halifax.....	June 28-Sept. 27.....			Do.
Hants.....	do.....			Do.
Kings.....	Aug. 10-16.....			Do.
Lunenburg.....	July 13-Aug. 16.....			Do.
Pictou.....	July 20-Sept. 13.....			Present. Also on Cape Breton Island, July 27-Aug. 21.
Richmond.....	Aug. 24-Sept. 20.....			Present.
Shelbourne.....	Aug. 24-30.....			Do.
Victoria.....	Aug. 3-9.....			Do.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 28 to Oct. 24, 1919—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued				
Ontario—				
Province.....				May 1-June 30, 1919: Cases, 166; deaths, 4. July 1-31, 1919: Cases, 51; deaths, 1.
Hamilton.....	June 29-Aug. 2.....	2		Township in Kent County.
Harwich.....	May 1-31.....	14	2	
North Bay.....	Sept. 21-27.....	1		
Ottawa.....	June 15-21.....	2		
Do.....	June 29-Sept. 6.....	3		
Peterborough.....	June 15-21.....	4		
Toronto.....	Aug. 31-Sept. 6.....	1		
Do.....	Sept. 21-27.....	1		
Walpole Island.....	May 1-31.....	42		Kent County. Island in Lake St. Clair. Among Indians.
Prince Edward Island—				
Charlottetown.....	July 16-Aug. 9.....	8		
Quebec.....				In Bonaventure and Gaspé Counties, Aug. 1-31, 1919: 2 cases.
Montreal.....	June 8-28.....	18		June 8-14, 1919: 1 case on incoming vessel.
Do.....	Aug. 24-Sept. 27.....	11		Estimated. On Indian reserve.
Quebec.....	June 8-28.....	18		
Do.....	July 5-Sept. 20.....	41		
Restigouche.....	June 13-July 31.....	40		
Ceylon:				
Colombo.....	May 1-31.....	4		June 17-23: Present.
Do.....	July 13-Aug. 23.....	3	3	
China:				
Amoy.....	May 20-June 16.....		13	
Do.....	July 8-21.....			Present.
Do.....	July 29-Aug. 25.....			Do.
Canton.....	May 18-June 21.....			Do.
Do.....	July 1-Aug. 16.....			Do.
Chefoo.....	June 8-21.....			Do.
Chungking.....	May 4-June 28.....			Do.
Do.....	June 29-Aug. 23.....			Do.
Foochow.....	May 18-Aug. 23.....			Do.
Hongkong.....	May 18-June 28.....	5	5	Do.
Nanking.....	May 25-June 28.....			Do.
Do.....	June 29-Aug. 30.....			Do.
Chosen (Korea):				
Chemulpo.....	Apr. 1-June 30.....	22	4	
Do.....	July 1-31.....	1	1	
Fusan.....	do.....	336	96	
Do.....	do.....	4		
Seoul.....	Apr. 1-May 31.....	3	1	
Cuba:				
Habana.....	Aug. 2-Sept. 22.....	4		First case from S. S. Venezia, from Spanish ports; arrived Habana about July 20, 1919. Second case, contact. Fourth case in physician treating previous cases in hospital.
Czecho-Slovakia:				
Prague.....	May 18-June 21.....	11	2	
Denmark:				
Copenhagen.....				Apr. 2-26, 1919: Cases, 11.
Egypt:				
Alexandria.....	May 14-June 24.....	233	95	
Do.....	June 25-Aug. 26.....	199	103	
Do.....	Sept. 3-9.....	9	3	
Cairo.....	Jan. 2-May 20.....	544	124	
Do.....	June 18-July 1.....	158	52	
Finland:				Apr. 16-June 30, 1919: Cases, 462. July 1-15, 1919: Cases, 44.
Provinces—				
Abo Och Bjorneborg.....	Apr. 16-June 30.....	13		
Kuopio.....	do.....	88		
Do.....	July 1-15.....	1		
Finland.....	Apr. 16-June 30.....	17		
St. Michael.....	do.....	73		
Do.....	July 1-15.....	2		
Travastchus.....	Apr. 16-June 30.....	63		
Do.....	July 1-15.....	5		
Vasa.....	Apr. 16-June 14.....	12		
Viborg.....	Apr. 16-June 30.....	340		
Do.....	July 1-15.....	36		
France:				
Havre.....	May 23-30.....	1		
Marseille.....	May 1-June 30.....		5	
Paris.....	May 11-June 28.....	17	28	
Do.....	June 29-Aug. 30.....	55	11	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 28 to Oct. 24, 1919—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Gibraltar.....	June 28-Aug. 16...	1	2	One from Bay.
Great Britain:				
Cardiff.....	June 15-Aug. 30...	8		
Dundee.....	June 1-7.....	1		
Do.....	Aug. 18-23.....	9	6	
Glasgow.....	June 8-21.....	5		
Liverpool.....	June 22-28.....	1		
Do.....	June 29-Sept. 6.....	6		
London.....	May 25-June 28.....	13		
Do.....	June 29-Aug. 9.....	18	2	
Manchester.....	July 27-Sept. 6.....	11		
Greece:				
Saloniki.....	May 15-June 28.....		48	
Do.....	June 29-Aug. 23.....		43	
India:				
Bombay.....	Apr. 28-June 28.....	712	283	
Do.....	July 6-Aug. 9.....	81	51	
Calcutta.....	May 4-June 21.....		444	
Do.....	June 29-Aug. 9.....		109	
Karachi.....	May 4-June 21.....	28	17	
Madras.....	May 18-June 28.....	171	55	Jan. 10-25, 1919: Cases, 29; deaths, 25.
Do.....	July 6-Aug. 16.....	236	107	
Do.....	Aug. 18-Sept. 6.....	54	26	
Rangoon.....	Apr. 28-June 28.....	188	92	
Do.....	July 6-Aug. 16.....	44	20	
Indo China:				
Cochin China—				
Saigon.....	Apr. 21-May 18.....	11	4	City and district.
Italy:				
Genoa.....	July 7-Aug. 31.....	8		
Leghorn.....	June 16-29.....	2		
Messina.....	June 1-21.....	13		Province, June 8-21, 1919: Cases, 23; deaths, 3.
Do.....	June 29-Aug. 24.....	336	128	
Milan.....	Mar. 1-June 30.....	50	8	
Milazzo.....	June 1-7.....	1	1	
Naples.....	June 2-29.....	103	91	
Do.....	June 30-Aug. 17.....	122	119	
Palermo.....	May 2-June 29.....	39	5	
Do.....	June 28-July 5.....	37	9	
Turin.....	May 18-June 29.....	5	1	
Do.....	July 6-Sept. 7.....	8		
Venice.....	May 20-June 1.....	2		
Japan:				
Kobe.....	May 4-Sept. 7.....	173	78	
Nagoya.....	June 1-7.....	1	1	
Taiwan Island.....	May 21-Aug. 12.....	20	6	Entire island.
Tokyo.....	May 1-June 5.....	2		
Yokohama.....	May 26-June 1.....	1		
Java:				
East Java.....				Apr. 9-June 3, 1919: Cases, 3; July 9-15, 1919: Cases, 2.
Surabaya.....	May 27-June 3.....	2		
Mid-Java.....	Apr. 26-May 16.....	7		
West Java.....				May 2-June 26, 1919: Cases, 615; deaths, 148. June 27-Aug. 25, 1919: Cases, 235; deaths, 58.
Batavia.....	Apr. 18-June 5.....	4	1	
Do.....	July 25-31.....	3	2	
Malta.....	May 1-31.....	1		
Manchuria:				
Dairen.....	May 13-June 2.....	3	2	
Mukden.....	July 6-Aug. 23.....			Present.
Mesopotamia:				
Bagdad.....	May 29-30.....	1		
Mexico:				
Cananea.....	Feb. 1-28.....	7		
Do.....	Apr. 1-30.....	1		State of Sonora.
Guadalajara.....	June 1-30.....	1		
Mexico City.....	June 1-28.....	20	1	
Do.....	June 29-Sept. 6.....	4		
Piedras Negras.....	June 22-28.....	2	2	
Salina Cruz.....	Sept. 1-15.....	1		
San Jeronimo.....	June 17-30.....	5		
San Luis Potosi.....	Sept. 7-13.....		1	
Do.....	Sept. 21-Oct. 4.....		3	
Tehuantepec.....	Sept. 16.....	2		
Vera Cruz.....	July 6-19.....	4		In State of Oaxaca.
Do.....	June 29-Aug. 30.....	2	9	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 28 to Oct. 24, 1919—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Newfoundland:				
St. Johns.....	June 13-Sept. 26...	9		June 13-27, 1919: Outports, 372 cases. June 28-Sept. 5, 1919: Cases, 58. Sept. 20-Oct. 3, 1919: Cases, 6.
Palestine:				
Jaffa.....	Jan. 30-Feb. 5.....	2		
Philippine Islands:				
Manila.....	May 11-17.....	1		
Portugal:				
Lisbon.....	July 26-Sept. 13.....	78		
Oporto.....	June 1-28.....	25	13	
Do.....	June 29-Aug. 30.....	66	45	
Portuguese East Africa:				
Lourenco Marques.....	Apr. 1-May 31.....	2	1	
Russia:				
Riga.....	June 1-30.....			Present.
Siberia:				
Vladivostok.....	June 8-30.....	45		
Do.....	July 1-31.....	12	3	
Spain:				
Almeria.....	May 18-June 30.....	68	6	
Barcelona.....	May 15-June 19.....	3	6	
Do.....	June 26-Aug. 26.....		37	
Bilbao.....	May 1-10.....	1		
Cadiz.....	Apr. 1-May 31.....		5	
Do.....	July 1-31.....		2	
Madrid.....	May 1-31.....	3		
Malaga.....	Aug. 1-31.....		1	
Seville.....	do.....		1	
Valencia.....	May 11-June 29.....	233	15	
Do.....	July 14-Sept. 6.....	82	13	
Vigo.....	Apr. 12.....	2		
Do.....	July 6-19.....	37	8	
Do.....	Sept. 7-20.....		2	
Straits Settlements:				
Singapore.....	Mar. 24-May 17.....	6	3	From vessel, Mar. 22, 1919:
Do.....	July 8-27.....	5	1	Present in villages in vicinity.
Sumatra:				
Medan.....	June 26-July 12.....			Present in surrounding country.
Tunis:				
Tunis.....	June 15-28.....	2	1	June 22-28, 1919: Present in surrounding country. June 29-July 12: Present in surrounding country.
Do.....	June 29-July 5.....	3	2	
Union of South Africa:				
Johannesburg.....	May 1-31.....	1		
On vessels:				
S. S. Eastern.....	Apr. 25-26.....	2	1	Death at sea. Second case landed at Woodman's Quarantine Station, Fremantle, Australia, Apr. 29. Vessel from England via Egypt and Colombo.
S. S. Karoa.....	Apr. 19.....	1		Landed at Colombo. Vessel from the United Kingdom via Egypt and Colombo.
S. S. Khyber.....	Apr. 10-May 4.....	4		From Liverpool, via Port Said, Suez, and Colombo. One case landed at Port Said Apr. 10, 2 cases at Colombo Apr. 22, 1 at quarantine, Fremantle, Australia, May 4, 1919.
S. S. Rio Negros.....	Oct. 4.....	1		At Port of Spain, Trinidad, from Bahia. From Montevideo, Aug. 31; Santos, Sept. 8; Rio de Janeiro, Sept. 15. Arrived Port of Spain, Oct. 4, 1919.
S. S. War Armour.....		7		En route from Naples to Aden and Colombo. Vessel arrived at Fremantle, Australia, June 22, 1919: Cases landed at Colombo.



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 28 to Oct. 24, 1919—Continued.**

## **TYPHUS FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Algiers.....	May 1-June 30....	82	11	
Do.....	July 1-Aug. 31....	4		
Austria.....				Mar. 23-Apr. 5, 1919: Cases, 118.
Vienna.....	Mar. 23-Apr. 5....	9		
Brazil:				
Rio de Janeiro.....	May 4-June 21....	3		Mar. 30-Apr. 5, 1919: Cases, 2.
Do.....	July 6-12.....	1		
China:				
Changsha.....	May 11-17.....	1	1	
Antung.....	July 6-30.....	2		
Chosen (Korea):				
Chemulpo.....	Apr. 1-June 30....	85	10	
Do.....	July 1-31.....	1		
Fusan.....	May 1-June 30....	5	2	
Do.....	July 1-31.....	1		
Seoul.....	Apr. 1-June 30....	147	28	
Do.....	July 1-31.....	1		
Colombia:				
Barrquilla.....	July 12-19.....		1	
Czecho-Slovakia:				
Prague.....	May 18-24.....	1		
Egypt:				
Alexandria.....	May 14-June 29....	474	248	
Do.....	June 28-Aug. 26....	431	140	
Do.....	Sept. 3-9.....	11	5	
Cairo.....	Jan. 2-July 1.....	3,125	1,796	
Port Said.....	Jan. 9-June 10....	11	7	
Finland.....				Apr. 16-June 30, 1919: Cases, 25.
Provinces—				
Abo Oeh Bjorneborg...	May 15.....	1		
Nyland.....	Apr. 16-May 31....	4		
Sf. Michael.....	Apr. 16-June 30....	15		
Viborg.....	Apr. 16-June 14....	3		
Germany.....	Jan. 12-Feb. 22....	344		Military.
Do.....	Feb. 22-Mar. 22....	220		Civil.
Do.....	Mar. 23-Apr. 12....	333		Civil, military, prisoners of war, deserters.
Do.....	Apr. 13-26.....	62		55 cases among German troops and among prisoners of war.
Do.....	Apr. 27-May 17....	126		Of these, 90 among Polish workmen and Russians; during same period, 105 cases among German troops and prisoners of war. In addition, Apr. 1-26, 41 cases were notified among Polish workmen and refugees.
Great Britain:				
Glasgow.....	June 8-July 5.....	13	2	
Dublin.....	Aug. 17-30.....	3		June 15-21, 1919: One case.
Dundee.....	June 30-July 5....	3		
Greece:				
Athens.....	July 21-27.....		1	
Saloniki.....	May 15-June 14....		5	
Do.....	July 6-Aug. 23....		18	
Hungary.....				Feb. 24-May 9, 1919: Cases, 258.
Budapest.....	Sept. 24-May 9....	124	6	
Debreezn.....	do.....	42		
Italy.....				Apr. 28-June 8, 1919: Cases, 3,470 — Austrian prisoners, 3,321; Italian soldiers, 82; civil population, 67.
Do.....				June 9-15, 1919: Present in 14 Provinces, with 761 cases, viz, Austrian prisoners, 631; Italian soldiers, 23; Rumanian soldiers, 97; civil population, 10.
Do.....				June 16-22, 1919: Present in 12 Provinces, with 127 cases, viz, Austrian prisoners, 102; Italian soldiers, 8; civil population, 12; Rumanian soldiers, 5.
Do.....				June 23-29, 1919: Present in 14 Provinces, with 117 cases, viz, Austrian prisoners, 107; Italian soldiers, 3; civil population, 7.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 28 to Oct. 24, 1919—Continued.**

## **TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Italy.....				July 6-13, 1919: Cases, 14, occurring in 7 Provinces—7 prisoners of war, 5 civilians, 2 Italian soldiers.
Do.....				July 21-27, 1919: Cases 5, occurring in 4 Provinces: 1 Austrian prisoner: 4 civil population.
Do.....				July 28-Aug. 3, 1919: 6 cases in 3 Provinces: civil population.
Genoa.....	June 25-July 1.....	91		
Naples.....	May 12-June 22.....	50	16	
Do.....	June 30-Aug. 17.....	17	6	
Palermo.....	July 21-27.....	2		
Venice.....	Apr. 27-June 14.....	58	9	
Do.....	June 30-Sept. 14.....	42	6	
Trieste.....	June 6-12.....	1		
Japan:				
Nagasaki.....	June 16-July 1.....	3		
Do.....	July 14-Sept. 7.....	9	4	
Mesopotamia:				
Bagdad.....	Apr. 19-June 6.....	34	22	
Do.....	July 26-Aug. 1.....	2		
Mexico:				
Guadalajara.....	May 1-31.....	1		
Mexico City.....	May 4-June 28.....	216		
Do.....	June 29-Sept. 13.....	272		
San Luis Potosi.....	July 27-Oct. 4.....			Present and in surrounding country.
Newfoundland:				
St. Johns.....	June 21-27.....	1		From vessel.
Palestine:				
Jaffa.....				Oct. 22-Dec. 22, 1918: Cases, 8; deaths, 3.
Portugal:				
Lisbon.....	June 22-28.....	1		
Do.....	July 26-Aug. 23.....	13	2	
Oporto.....	June 1-15.....	52		
Do.....	June 30-Aug. 30.....	92	42	
Russia:				
Archangel.....	May 15-June 1.....	9	2	
Riga.....	May 1-June 30.....	2,826		
Siberia:				
Vladivostok.....	June 9-30.....	164	9	
Do.....	July 1-31.....	56	13	
Spain:				
Barcelona.....	May 15-21.....		1	
Madrid.....	May 1-31.....		1	
Sumatra:				
Medan.....	June 26-Aug. 2.....	3		
Syria:				
Mersina.....	Feb. 13-19.....			Present.
Smyrna.....	Sept. 20.....			Do.
Tunis:				
Tunis.....	May 24-June 21.....	3	1	
Do.....	July 20-Aug. 29.....	2	2	

## **YELLOW FEVER.**

Brazil:				
Bahia.....	Apr. 12-June 14.....	48	15	Jan. 12-May 17, 1919: Cases, 43; deaths, 25. July 29, 1919, reported seriously prevalent in States of Bahia and Pernambuco.
Canal Zone.....	Aug. 10-12.....	1	1	Patient at Corinto, Nicaragua, at quarantine from S. S. Salvador.
Ecuador:				
Guayaquil.....	May 1-31.....	1	1	July 31, 1919; at Leon, Nicaragua, Aug. 2, 1919. Embarked Aug. 6 at Corinto.
Naranjito.....	May 1-June 15.....	2	1	
Honduras:				
Amapala.....	Aug. 28.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**

**Reports Received from June 28 to Oct. 24, 1919—Continued.**

## **YELLOW FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Merida.....	June 30-Sept. 12...	20	7	State of Yucatan.
Nicaragua:				
Leon.....	Sept. 1.....			Present, and in vicinity.
Peru:				
Department of Piura—				
Paíta.....	July 10-22.....	8	5	June 1-Aug. 12, 1919: Cases, 10; deaths, 6.
Piura.....	.....do.....	46	10	June 1-Aug. 12, 1919: Cases, 90; deaths, 20.
Salvador:				
La Unión.....	July 6.....	2		
St. Miguel.....	June 24-July 6.....	4		
San Salvador.....	.....do.....	1	1	75 miles from city of San Salvador.